Life After the Great East Japan Earthquake: A Report from One Miyagi Fishing Community 七ヶ浜より的生活

Alyne Elizabeth Delaney

Introduction

Hanabuchihama Port, pre-tsunami

There are as many stories to be told about the March 11th tsunami in Japan and its aftermath as there are people in the region. Many of these stories are poignant; some are heartwarming; most are overwhelming. Videos taken of the event, and interviews with survivors afterward, still have the power to bring tears to one’s eyes.

The event also had a significant impact on a great number of people outside of Japan, including many of us who contributed to this issue: researchers who have spent a great number of years living and working with informants, many of whom are counted as close friends. I, myself, have been visiting Shichigahama for over 20 years; my first interviews with fishing cooperative members took place in the autumn of 1991. It is my hope that such a long history in the community can help provide a view of the recovery with some depth of understanding of the relationships and networks which are needed at such a time.

Shichigahama

Shichigahama (population 20,396) is the smallest town (13km²) in Miyagi Prefecture. Entrepreneurship is high with many householders working in occupations related to the fisheries, as would be expected in a coastal community, such as in the catching and aquaculture sectors, owning stalls in the nearby fish market in Shiogama, as well as in ancillary industries and farming. The coastal neighborhoods are populated by long-standing residents many of whom are fishers, farmers, and the self-employed, while the inner part of the town has filled in the last few years with ‘bedtowns’ for city commuters for the neighboring cities of Sendai, Tagajō, and Shiogama.
The town is known for its long, sandy beaches and beautiful views of islands of the Matsushima Bay, which forms the town’s north/northwestern border. The town is also home to the Kokusai-mura (International Village, a culture center) as well as a small archeological museum with artifacts from one of the largest Jomon Period shell mounds in all of Japan.

Given the geographic characteristics of the town, some neighborhoods were relatively untouched by the tsunami while other areas were completely wiped out. Most of the populace was able to seek shelter upon the numerous, steep, pine-covered hills, in the center of town and at officially designated evacuation points. Not all evacuation centers were safe, however. Given that the tsunami height in Shichigahama was 12.1 meters with the waves extending inland two kilometers, some designated emergency evacuation points were overrun by the waves. As one resident watched the waves destroy the neighborhood below her own evacuation meeting point (see photo below), she realized the hill they were on was not high enough. “I yelled for everyone to run, to run away higher up the hill. But no one moved. Not one. They just stood still.” Her brother and father were caught up in the waves outside her home while her mother was trapped in the house with the wave almost reaching the ceiling of the room she was in. Thankfully, they survived. Some of their neighbors, however, did not.

In looking at Shichigahama and the rest of coastal Miyagi, statistics, though they are mere numbers, can strike you quite forcefully. In Shichigahama, over 90% of the farmland land was inundated by seawater. All of the ports were damaged in some way such as through the destruction of seawalls or the sinking of land, leaving parts of some ports perpetually underwater. 3,740 homes were damaged or destroyed, 916 of these largely or completely. Nearly a quarter of the population lived in shelters immediately after the tsunami. After seven months, only 1,267 were living in temporary housing in Shichigahama with another 743 living outside of the town in temporary apartments (Shichigahama Town Hall 2011a).
(Shichigahama Town Hall 2011a), 70 people died within the borders of Shichigahama in the tsunami. 59 of these were residents, nine were outsiders who happened to be in the town at the time of the tsunami, and two remain unidentified. In addition, another 32 residents died in the tsunami outside of Shichigahama. Five more remain missing and are presumed dead. What strikes me forcefully in reading the list of the dead and missing, was their ages: the oldest victim was 101 years old; the youngest was less than a year. One lived a century, only to die in the tsunami while others had their entire lives ahead of them, perhaps even a century of life ahead. In studying the list of dead and missing, more than a third of those who died were from the Shobutahama neighborhood alone. In looking at the overall breakdown, the ages of deaths form a bell curve with almost half of the deaths coming from those in their 60s and 70s.

Consequently, tsunami are well known in the area and planned for such as through annual tsunami drills and the building of sea walls. Each time I visited the community, many people spoke of the Chile earthquake and tsunami of 1960. One Fishery Cooperative Association (FCA) member often recalled how, as a teenager, he carried his grandmother on his back to a hill for safety, running back to save his precious drafting pencils. On the anniversary each year, Shichigahama tsunami sirens blare as a warning. As a fieldworker, I also took part in the annual disaster drill where residents practiced putting out fires, rescuing people from damaged cars and buildings, and learned first aid.

In reviewing notes from my original field visits in 1991, I found photos where the seawalls were still being built in some of the smaller ports, walls which were set (according to conventional wisdom) to the height of the last deadly tsunami (1960). Despite the walls, many people lost their lives, their relatives and families, their homes and their jobs.

Fishers
The Toguhama neighborhood port, perpetually submerged due to subsidence post-tsunami

The fishing industry in Miyagi prefecture was one of the most important in Japan. The Sanriku coast location of Miyagi, precisely where the warm Kuroshio current from the south and the cold Oyashio current from the north cross, make these waters rich in marine resources. Another specific feature in Miyagi’s coastal waters is the divide in coastal fisheries between the sandy bottom south of Shichigahama and the rocky shore to the north, which is well-suited for marine cultivation including seaweeds (especially nori and wakame), oyster, sea squirt and scallop.

Unlike earlier Sanriku quakes, this time Miyagi fishers faced the greatest direct damage from the tsunami compared to Iwate, Fukushima, and Ibaraki Prefectures. According to the Fishery Agency (2011:11), 90% of fishing vessels were lost in Miyagi, 6041 FCA members’ homes were damaged or destroyed (60%), and 452 members of JF Miyagi (the Prefectural Fishing Cooperative) are missing or dead. The aquaculture subgroup was also hit hard: 57,886 rafts for aquaculture were washed away or destroyed and all aquaculture facilities for seaweed (especially nori and wakame), oyster, sea squirt and scallop in the prefecture were completely destroyed (Funato 2011:11).

One year after the tsunami, beginning fisheries work again is slow going. Only five of 75 nori households in Shichigahama are working this season (September through April) and these are only able to work since they had seeded nets in freezers which survived the disaster. Some areas in Miyagi have received donations in the form of boats and seed stock (e.g. wakame and oyster) to help them begin again. Yet, even when boats or gear are available, the huge amount of debris in the waters can make work difficult and dangerous. Drifting nets and rafts used for cultivation were swept away by the tsunami making operating motor boats a struggle; entangled ropes and wires make activities such as trawling dangerous. Professional divers are working to clear underwater debris at the main ports, such as in Rikuzen Takata. These divers say they sometimes come across clothes of what they believe to be the remains of the dead (personal communication, Dr. Johannes Wilhelm). For this reason, some people in the area currently refrain from eating sea urchin or eel because they are carnivorous (and would have fed on the tsunami dead).

A cut-out of the Shichigahama Municipal Disaster Plan 2011-2020 which shows the
areas inundated (blue) by the tsunami

There are other fears regarding seafood, particularly surrounding pollutants churned up from the seabed and pollutants washed out from towns and industrial centers. One industrial center bordering Shichigahama, for example, burned for three days with all of the oil, residue, and fire-fighting run-off going straight into the sea. There are also radiation fears surrounding seafood, especially seaweeds, though this is more of a concern further south, closer to Fukushima. As one environmental and fisheries activist has stated, however, for locals, these are concerns for the long term, and not for the here and now of rebuilding and survival.

The long march towards the future

In December of 2011, the Shichigahama Municipal Disaster Relief Committee published their plan for the future: the “2012-2020 Plan.” As mentioned previously, some neighborhoods in Shichigahama were wiped out entirely in the tsunami waves. The fishing and beach holiday centers of Hanabuchiham and Shobutahama were particularly hard hit with over 500 homes in these areas being completely destroyed and another 216 damaged. Other neighborhoods in the town were also damaged. Many flooded houses and buildings, though not destroyed by the force of the waves, have been pulled down since they could not be repaired. This includes houses, workshops, and branch fishing cooperative offices on the relatively sheltered Matsushima Bay side of the town.

Key for the recovery of Shichigahama as a town, however, is the fact that many of the municipal building are located above the inundation points: though some buildings were destroyed by the earthquake, the town hall is located above the tsunami-hit area. Also, only one town hall employee died. Consequently most of the town administration’s human capital and records remain which is proving vital for a strong recovery (e.g., compared to towns which lost both).

Shichigahama quickly put together a disaster committee and began work almost immediately. By April 24, 2011, they had a committee organized focusing on each of the town’s vital aspects which have long made up their town’s slogan: “the sea, people, and town.” As of October 31, 2011 the Disaster Committee had published 95 reports on the disaster and on-going work. The most recent work, Recovery Plan 2011-2020, was published in December of 2011, with public meetings held throughout the town this same month. These plans include removing people from their historical and ancestral home sites and moving them inland and to higher elevations that are believed to be safer. Such plans are contentious and it remains to be seen if they will be approved, though actions of this kind have occurred in the past with rebuilding taking place on higher ground. Following the 1933 Sanriku quake, for example, Iwate and Miyagi Prefectures used prefectural funds to relocate 2199 homes in 20 towns and villages in Iwate and 801 houses in 15 towns and villages in Miyagi (Noh 1966: 5).

Figure 1: Examples of suggested defense methods for the town. Shichigahama Municipal Disaster Plan 2011-2020, December 2011.

The current plans in Shichigahama are detailed and radical.

As Figure 1 shows, large areas of the town are now planned to serve as buffer zones. One woman was distraught at the thought, “I have nowhere else to go; this is my home. Where else can I go?” Others seemed resigned, “The land here has sunk below sea level so they are talking about making it a park... I do not know
where my parents will live.” It remains to be seen how the plans pan out. People interviewed were quite divided: some fishers wanted to rebuild, and in fact one had already, while others wanted to move. A more in-depth survey is needed of the overall population to get a more accurate sense of the entire population but initial investigation showed divided opinions, even among those who lost their homes.

Relief and recovery strategies

During my most recent visit to Shichigahama in October of 2011, I was not concerned with long-term rebuilding plans, however, but in the here and now of my friends’ lives. I was interested in knowing how they were handling life and finding out how they managed to support themselves with the loss of their livelihood, and in some cases, their homes and family members.

Remains of nori processing equipment, Shobutahama neighborhood.

There have been political discussions in Japan for a scheme to finance fisheries as part of the overall Reconstruction Plan. This is part of the ¥11 billion Third Supplementary Budget Plan (presented to the Diet on October 28, 2011). Payments to rebuild fisheries follow specific guidelines. Shichigahama Fishing cooperative members who cultivate nori, for example, may receive aid if they change their work model and agree to work in cooperative groups rather than as independent households. One such group has a plan in place to begin in September 2012 with a detailed budget and work plan. As one member explained, this will be an experiment of sorts. “Before the quake, there was almost no cooperative work [in Shichigahama], only one group.” “Now,” he added, “At the most there are four or five who will remain independent.” He went on to point out that “Of those who will not work cooperatively, they still have their machines, they still have their boats, and they can use local ports. Those people do not need to work cooperatively. If they have not lost everything they don’t need to change.” He emphasized that, if not for the tsunami, he and others would have chosen to remain independent.

Yet, how should these fishing cooperative members and coastal residents make their living in the interim, in the eighteen months between March 11 2011 and the autumn of 2012 when support is expected to be forthcoming? Job opportunities are few along the coastal Pacific after the disaster. Fewer than half of local companies in Miyagi resumed their corporate activities, while the remaining half is unsure about it or unable to do so (Zaikei Shimbun 2011). Creating job opportunities to prevent people from moving away is one of the greatest tasks local municipalities currently face.

What is needed by everyone, especially local entrepreneurs and the self-employed, is
money. In the nearby city of Shiogama, the city’s Chamber of Commerce was able to provide loans to some businesses to rebuild. One recipient, a restaurant owner said, “I am very grateful to the Chamber; if not for their help I would not have been able to rebuild.” This restaurant owner specializes in local seafood so his business aids not only himself, but also the local fishers and fish market stall owners who provide his ingredients.

One plan to provide income for fishers is a temporary support system which will both pay them for labor provided and help them make the area usable for work in the future. JF Miyagi\textsuperscript{10} and its branch fishing cooperatives (FCAs) serve as agents for consultation and support for this administrative program. In each of the port areas in Shichigahama, FCA members have been employed by the FCA to help clear and burn debris. Though they only work 4 hours a day, this provides much-needed income. In other parts of Miyagi, fishers have been hired to remove and collect debris in their fishing grounds in a self-help program financed by local governments. To apply for this program, at least five fishermen must form a group. Upon successful application, each member is paid a daily salary; support to rent vessels is also provided (Dr. Johannes Wilhelm, personal communication).\textsuperscript{11}

A photo seen in the town hall taken of the Hanabuchihama and Yoshidahama neighborhoods, one week after the tsunami. The center-left building was the Shichigahama fishing cooperative.

The fishers and workers in the ancillary industries have a desire and the motivation to rebuild and begin work again. In the short-run, however, the funds may help to kick-start their activities.

**The Future**

What does the future look like in the short term for these residents of Shichigahama? Shichigahama, as with many port communities, will see a severe decline in numbers of fishers in the next few years. Of the 75 nori cultivators from 2011, fewer than half plan to return to working again, mostly due to their age. The fishing cooperative headquarters was destroyed along with other official structures such as the nori research center and on-land seeding equipment. Currently, they are temporarily housed in the only branch FCA to have survived the tsunami, in the Toguhama neighborhood.
What will fewer FCA members mean for the future of the cooperative? Will it be able to survive as an institution? The assistant cooperative presidents says he thinks it will. “The cooperative will be all right, even with lower numbers.” He explained that though there had been approximately 150 fishers in the FCA, twice the number of nori cultivators, many of them simply produced for themselves. Nori, however, had been an economically valuable harvest. So even though most of the fishermen are gone and their boats are gone, he explained that if the new cooperative work groups are productive, the FCA’s income should remain high.

The new work groups are a new model, however, and it remains to be seen how this changes the society and culture of people who were previously fiercely independent. As independent operators, FCA members used cooperatives for better prices in buying materials (bulk), better prices in selling their products, and credit services, as well as a management institution for the fishing grounds and resources. Even as a member of a cooperative, members worked independently on the vital aspects of “when, where and how” to harvest their own resources.

Thus, for these independent operators, despite the advantages of the current plans for work groups, they are really just making the best of a bad situation. As one nori cultivator commented after an interview, “It was great in the old days ... if not for the tsunami, we would have run in the black for a long time.” He, along with 32 other FCA members, had no plans to produce nori cooperatively. Nevertheless, now that he has agreed to join the group he is working hard on the building plans and planning the future work.

These FCA members are making the best of a daunting situation. As was written on a sign in a destroyed Hanabuchihama house, “We cannot lose, but must head on together.” They can see they must work together in order to survive at least in the short run, so they are changing their work model in order to do so.

It will be interesting to see how the change in work model affects relations among the FCA members in the future. The 2011-2012 Rebuilding Plan, if neighborhoods are shut down and homesteads moved elsewhere, also promises to have a powerful effect on the community, as well. Only time will tell, however, what that effect will be.

References


Shichigahama Town Hall. 2011a. Municipal Disaster Relief Headquarters, Earthquake reconstruction information (No.95), October 31, 2011


**Notes**

1 Previous, ethnographic work published on Shichigahama provides details on fishing cooperative members way of life and work. See, for example, Delaney 2003 or Delaney 2011.

2 Shichigahama literally means “seven beaches” after the seven port communities found on the peninsula within the borders of the modern town (established 1959). The village of Shichigahama was founded in the 1889 amalgamation.

3 Shichigahama is a town with many hills. If not for these, the waves would have gone several more kilometers inland as seen in the cases of nearby Arahama and Yuriage.

4 Ms. T. Oota of the Hanabuchihama neighborhood

5 I do not go into radiation damage in this essay though the Town Hall takes readings at the local schools and publishes these in each disaster report. And of course, radiation fears will affect the future of the fisheries.

6 12,023 out of 13,570.

7 He died on duty, attempting to rescue residents.

8 This woman’s ancestral home was in this neighborhood.

9 This group had eight cultivators, with 75 independent households in the rest of town

10 Japan Fisheries Miyagi, the main fishing cooperative in the Prefecture

11 Daily wage of ¥ 12,100 and vessel rental of ¥ 21,000 to ¥ 92,500 depending on tonnage.

**Alyne E. Delaney** is an Associate Professor in Innovative Fisheries Management, the
Department of Development and Planning, Aalborg University, Denmark. She is also the editor-in-chief of The Commons Digest of the International Association for the Study of the Commons.


This is part of the series One-Year After The Great East Japan Earthquake: Reports From The Field edited by Christopher S. Thompson and Dawn Grimes-MacLellan.

The complete series is comprised of the following articles:

1. Christopher S. Thompson, The Great East Japan Earthquake One Year on: Reports From The Field (https://apjjf.org/-Christopher-Thompson/3702)

2. William W. Kelly, Tohoku’s Futures: Predicting Outcomes or Imagining Possibilities (https://apjjf.org/-William_W_-Kelly/3703)

3. Alyne Elizabeth Delaney, A Report From One Miyagi Fishing Community (https://apjjf.org/-Alyne_Elizabeth-Delaney/3704)


5. Christopher S. Thompson, Local Perspectives On the Tsunami Disaster: Untold Stories From the Sanriku Coast (https://apjjf.org/-Christopher-Thompson/3706)

See the complete list of APJ resources on the 3.11 earthquake, tsunami and nuclear power meltdown, and the state and societal responses to it here (https://apjjf.org/japans-3.11-earthquake-tsunami-atomic-meltdown).