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“This is unusual.”

Talking to himself, Gohei came out from his house. The shock of the earthquake was not so big; however, the long and slow quake with the groaning earth sound was something even old Gohei had not experienced before.

Gohei casted his worried eyes toward the village from his garden. In the village, people were busy preparing for the eve of the festival to celebrate rich harvest. It seemed that people did not notice the earthquake at all.

Gohei turned his attention from the village to the sea and his eyes were fixed to the unusual sight. <sup>(※1)</sup> The waves were moving against the wind toward offshore and running away from the land. In the meanwhile, the vast sandy space and the dark rock bottom appeared along the beach.

“Oh, no! Tsunami will be coming.”, he thought. If nothing was done, more than 400 lives and the whole village would be swept away at once. There was no time to lose.

“I’ve got an idea.”

Gohei dashed into his house and came out with a huge torch in his hand.

There were harvested rice sheaves stacked before being stored.

“It is too valuable to lose, but I have to save the lives of people in the village.”

Gohei suddenly put fire on <sup>(※2)</sup> “inamura”. Fanned by the wind, the fire blazed up. He frantically ran around to set fire on inamura one after another. After firing all the rice sheaves he harvested, he threw down the torch and just stood up there looking towards the offshore.

This is the beginning of the story of “Inamura-no-Hi”, featured on the textbook for elementary school students for about 10 years from 1937. The story continues. Surprised by the burning rice sheaves, people ran up the hill to his house. That is how all could survive the tsunami.

Gohei’s right decision and actions left readers with a great impression. At the same

time, the story told the threat of tsunami as well as the importance of immediate evacuation to the high ground.

2

The model of Gohei in this story is a man named “Hamaguchi Gihei”.

Hamaguchi Gihei was born in a village called Hiromura in <sup>(※3)</sup> Kishu domain. (current Hirogawa Town in Wakayama Prefecture) in 1820 in the late Edo Period.

Hiromura was a peaceful village with a population of 1300, where farmers and fishermen lived. Gihei’s family owned a soy sauce business in Edo (current Tokyo) and Choshi (current Choshi City in Chiba Prefecture). Being influenced by the vibrancy of Edo while living in a peaceful seaside village, he spent his childhood not only having fun but also studying hard. Gihei grew up and started to help the family business. Subsequently, he became a family head (master of the house) and spent half a year in Edo and Choshi and the other half at his home in Hiromura.



浜口儀兵衛 (1820–1885)  
Hamaguchi Gihei

When Gihei, 34 years old at the time, was staying in Hiromura, a massive earthquake with a <sup>(※4)</sup> magnitude of 8.4 occurred around 4 o’clock in the evening of November 5<sup>th</sup> in 1854. The epicenter was off the coast of Shionomisaki Cape in Wakayama Prefecture. Hiromura was struck with a huge earthquake registering an upper 6 on the Japanese intensity scale of 7.

There is a record of this earthquake written by the person who witnessed the event. It is a document titled “Ansei Monroku” which has been handed down at Yogen-ji Temple in Hirogawa Town. In the document, details of the earthquake are well written followed by description of a number of tsunami waves which hit the village repeatedly. The author of the document described what Gihei did as follows.

“He ran around the village and let the people evacuate without fear of the <sup>(※5)</sup> second wave. Avoiding the waves, he looked around the village as he worried there could be any people left. After the sun set, it became dark and people could not find their ways to escape. He set fire on rice sheaves in the field to save the lives of people.”

He put fire on rice sheaves to show the direction for evacuation to the villagers who were lost in darkness. That is how he saved the lives of many. Modeling after the wisdom and decisiveness of Gihei, the story of “Inamura-no-Hi” was written featuring Gohei as the main character.

However, Hamaguchi Gihei’s true story has not yet started.



「安政聞録」の中にえがかれた津波の様子  
Illustration of the tsunami in “Ansei Monroku”



安政の大地震について書かれた「安政聞録」  
“Ansei Monroku”, a book written about the  
great earthquake in the Ansei era

3

After the massive earthquake, fields were covered with scattered pieces of timber and wreckage brought by seawater. Most of houses were collapsed, or washed away by several waves of tsunami. In addition, large aftershocks occurred frequently. At the sight of devastated people, Gihei sent a letter to the Kishu domain lord to ask for support. However, there was no reply for many days. Some villagers lost their hope and were going to abandon the village.

“If this situation continued, the village would be endangered.” Worried about the village, Gihei spent his own fortune to buy rice and clothes as well as build temporary houses for those who lost their housing, food and clothing. However, these efforts could not stop the population outflow from the village. Fishing boats could not be used

because they were carried away or destroyed by tsunami. Also, fields were not ready for cultivation because they were damaged by salt from seawater. In these circumstances, it was obvious that people could not make a living without taking any countermeasures. “What should we do in order for the villagers to regain their hope and vigor and remain in the village?”

After deep consideration, Gihei came up with a project to build an embankment by the villagers themselves. He requested approval of the project to the Kishu domain lord, proposing that he and his family business would cover all costs including material and labor costs. The project was approved by the domain lord.

Gihei eagerly spoke to the villagers.

“Let’s make a large embankment which can protect the village even if a big tsunami attacks 50 or 100 years later. I would like as many of you as possible to participate in the construction works. I will make sure you can get paid on a daily basis. Let’s join our forces to build the village where we and our descendants can live safely.”

Gihei’s eagerness stopped the villagers who were going to leave the village. His idea to provide the villagers with jobs, which would allow them to earn money and work for the sake of the village, turned their attention back to the village. Most of the villagers decided to participate in the embankment construction works.

Gihei and the villagers started the construction works in February 1855. The embankment designed by Gihei was a huge one with the total length of 900 meters and the height of 4.5 meters. The length of 900 meters was equal to the distance between two rivers flowing into the sea. The height was based on the maximum height of the tsunami that hit the village. The base of the embankment was designed to be protected by stone-wall structure and covered by earth mound so that the embankment would not be destroyed by fast-flowing tsunami. About 400 to 500 villagers worked hard every day. All people, including children, did their best according to their abilities. The village was full of energy, and no one tried to leave there any longer. Gihei’s feelings for his hometown moved the people, and saved the village again.



儀兵衛が設計した堤防の想像図  
Image of the embankment designed by Gihei

However, in October 1855, a big earthquake hit the Edo area. Receiving the news of the earthquake, Gihei headed to Edo for recovery of his business. As soon as he arrived, the store manager appealed to him.

“Please stop financing the embankment construction. If you continue, we will have to close the store rather than resume the business.”

Gihei was faced with a decision, but he could not easily make up his mind.

Eventually, the store in Edo was closed without any prospects for recovery. The only business left for Gihei was the store in Choshi. To protect the business, Gihei worked very hard in Choshi. One day, he received a letter from Hiromura. The letter said that the villagers were caring about him and waiting for him faithfully. “I will complete the embankment by all means.” This was Gihei’s final decision.

The store in Choshi gained a new momentum as the workers were motivated by Gihei’s strong commitment to the village and villagers. In particular, those who were from Hiromura made their best effort to work for their hometown. Their energetic attitude made the entire store united. This year, the store recorded the highest production since its establishment.

Two years later, Gihei returned to Hiromura after a long interval. During his absence, the villagers worked tirelessly to proceed with the embankment construction. Realizing that they were trying to revitalize their village by themselves, Gihei took final actions to complete the construction. He ordered the villagers to plant thousands of pine trees along the embankment, so that their roots grown in the ground would make the embankment stronger and resistant to tsunami and longtime exposure to wind and rain. Moreover, the pine grove was expected to play other roles. Even when a tsunami gets over the embankment, the pine grove could weaken the waves. Also, even when people are swept away by the waves, the pine grove could prevent them from flowing into the sea. Such a large embankment with stone-wall structure and earth mound was the first in the world at that time.

It took four years to complete the construction works. With the total length of about 600 meters, which was shortened from the original design, “Hiromura Seawall” was finally completed.

Thereafter, Gihei focused on the recovery of his declining family business. After he

successfully accomplished his recovery efforts, he passed away at the age of 65 in 1885.

4

In 1946, 88 years after the completion of the embankment, a massive earthquake with a magnitude of 8.0 occurred again off the coast of Wakayama, and Hiromura was hit by a 4-meter tsunami. However, unlike the earthquake in 1854, when all main residential areas in the village were flooded, the embankment prevented the most parts of the village from being damaged by floods in this earthquake. This is when Gohei's profound wish for "an embankment which can protect the village when a big tsunami attacks 100 years later" finally came true.

Gihei was neither a professional designer nor a civil engineering specialist. In this sense, his achievement of building the embankment that remained useful for 100 years is truly incredible and deserves great credit. Moreover, in terms of post-disaster response and disaster risk reduction, Gihei's embankment construction has great significance. For example, in addition to material support, he launched the disaster risk reduction project while providing livelihood support. It is also noteworthy that he encouraged the villagers to have a sense of self-help and mutual help, so that they could help each other and work together to protect their own village without depending on others.

Historically, many other areas have been repeatedly affected by tsunami disasters. One of them is the Sanriku Coast, where the Great East Japan Earthquake occurred. The massive earthquake occurred before 3 p.m. on March 11, 2011, and a strong quake continued over 1 minute across the coastal area. As the scale of the tsunami after the earthquake was unimaginably huge, the embankment could not block the waves and many people lost their lives.

However, children, students and residents, who had learned about tsunami and repeatedly participated in evacuation drills, evacuated immediately. On the way, they helped young children and elderly people for their evacuation, and prompted those who were not ready to evacuate immediately. Their efforts saved many people. This is another example where a sense of self-help and mutual help, represented by Gihei's actions, worked very effectively. In the affected areas, people are making continued efforts for recovery and rebuilding of their communities, aiming never to be damaged by

tsunami again. These recovery efforts are conducted in a cooperative manner, with the combination of self-help, mutual help, and public help by the national and local governments.

As we live in a quake-prone country, we can and need to learn a lot from what Hamaguchi Gihei did to protect his hometown for the next 100 years. In Hirogawa Town, Tsunami Festival is held every November. In the festival, local children put a handful of sand on the embankment built by Gihei to express the gratitude to their great forerunner and wish for the safety of their hometown.



現在の広村堤防

Present view of "Hiromura Seawall"