

The Importance of On-Site Training and Cultivation of Human Resources that Totally Know Job Site

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I will advocate tsunami measures on the coast after the Great East Japan Earthquake occurred on March 11, 2011.

Many people were affected by the Great East Japan Earthquake on March 11, 2011 and it made me re-think about the power of tsunami. All railroad tracks of the Senseki Line has been opened on May 30 of this year, however, restoration and reconstruction have not been done completely in spite of 4 years have passed since the earthquake.

We have been doing volunteer activities to be close to people affected by the earthquake since right after the earthquake occurred such as removal of rubble, holding events, making a present of flowers which is continued. Railway is moving means of residents and it is a huge responsibility of ours, railway workers, to deepen the cooperation with the residents. Residents who were looking forward to re-open railroad tracks were very moved by re-opening of railroad tracks. We should not be satisfied with re-opening of railroad tracks. We have to create reconstruction and safety continually.

Employees of JR saved lives of passengers and workers by decisions from experiences, not by the manual. There were no casualties. 105 members of East Japan Railway Workers' Union got a license of a disaster prevention instructor to make use of the lesson. It is not the goal to get the license. To increase security awareness and to create a railway which is strong in disasters, disaster prevention instructors in Morioka, Akita, and Sendai office became the center and did on-site exploration of railway tracks on the coast (Morioka, Akita, and Sendai have many railway tracks on the coast). Many workers felt it was not possible to save lives in a current situation. I will show you some cases.

On-site exploration at Rikuzenhamada station.

We reviewed evacuation guidance at Rikuzenhamada station on the Senseki line based on the manual made by JR Company. We went to a hill in the north of Hamada which was designated as the evacuation place but the hill was lower than railway tracks.

This hill was hit by 1.6 meters of tsunami when the Great East Japan Earthquake occurred. The maintenance of the evacuation place has been continued. It is a question whether it is safe to evacuate to the place where is lower than railway tracks when huge tsunami happens. A union member says it

makes no sense to evacuate to lower places. We found an evacuation place which is closer, higher, and easier to evacuate than the manual of JR Company. We are appealing our place is safer.

On-site exploration around Kazuma station.

We walked along signs adjacent to railway tracks and went to an evacuation place. We found that the place which is designated as an evacuation place in the evacuation manual of JR Company will be closed when tsunami occurs. A union member in Miyagino transportation office said "I realized the fact thanks for an on-site exploration. Other members do not know it. I realized the importance of an on-site exploration and an evacuation drill." We realized it is important not only to be angry about the company but also the point of view how to protect lives of passengers and ourselves. We will continue the on-site exploration.

The signs. We realized there was no uniformity of signs thanks to the on-site exploration. Please look at the pictures in the upper left. There are signs by JR and the municipal and these signs are pointing different directions. Please look at the pictures in the upper right. These are the signs attached on the same utility pole but the face and the background point different places and the place is not the nearest one. Please look at the picture in the lower left. The arrow points the evacuation place but the down-pointing arrow says "go straight." There are many signs which can be confusing people.

Characteristics of signs of the Gono line. There is no sign around Fukaura station in the Gono line which runs in Nishitsugaru-gun, Aomori prefecture. On the other hand, Ajigasawa station in the next town has a lot of signs. Many places are not dealt with in the same way.

Evacuation maps. We found there are evacuation maps which lead to the sea and show a detour. Are such signs okay when we have to evacuate immediately? After the Great East Japan Earthquake, many municipalities made disaster prevention and evacuation manuals but some municipalities have not finished yet.

Dangerousness in the areas along the Sea of Japan. It is said that huge tsunami will reach immediately in the areas along the Sea of Japan. The reason is that the geological layer of the areas along the Sea of Japan is thinner than that of the areas along the Pacific so the geological layer moves sharply. Therefore, tsunami can be bigger than the earthquake size and even if it is a magnitude 7 earthquake, huge tsunami can occur. This is very dangerous.

Dangerousness of the Gono line. In such situations, the Gono line has a weak point that there are a few evacuation places because it runs along the Sea of Japan and there are mountains and cliffs. It is hard to evacuate because there are no evacuation stairs and tsunami will reach quickly.

Lessons of the Hachinohe line. There are evacuation stairs along the railway tracks in the Hachinohe line, however, evacuation stairs have problems. There are steep stairs. Evacuation stairs near the Uge station is steep angle so there is a resting place in the middle of the stairs. The resting place is useless because we have to evacuate quickly.

Thus, evacuation places, evacuation routes, and signs are not standardized, so the provisions are not safe.

Evacuation drills with residents. Under the Great East Japan Earthquake, there was support of residents and advice from people who know geography and ground form well. We protected lives of passengers and railway workers by prioritizing on-site decisions. It is important to learn with residents. After the Great East Japan Earthquake, JR Company started joint drills with residents but residents represented that JR workers were lack of seriousness and not able to save lives. After that, JR Company does not invite residents to drills. Can we say it is a real drill? What do you think?

It took 20 minutes to evacuate in the Gono line. It was too late to evacuate from tsunami. It is important to do drills that are accurate for characteristics of the place and to find the way of drills with passengers and residents. If we do not do so, judgment will not be improved.

The importance of on-site exploration, and company's attitude that heavily relies on tablets. It is important to go to the place for real. After the on-site exploration, we were thunderstruck about the fact that risks were not fixed. We regret the fact. We have to increase judgment by going to actual places.

JR Company downloaded manuals to tablets and gave them to railway workers, but on-site explorations have not been done. Unfortunately, manuals' safeness has not been verified and nothing has done for the case that evacuation places in the manuals are closed in case of tsunami. No one can look at the manuals or tablets under disasters.

Port and Airport Research Institute. Disaster Prevention Instructors visited Port and Airport Research Institute in Kurihama. This institute researches disaster prevention and construction of facilities at ports and airports. An expert said "it is important to evacuate before water exposure," "there is nothing more important than an on-site decision," "in case of tsunami, adults will be swept at the water level of 50cm and children will be swept at the water level of 25cm," "we have to consider about not only the water level, but also the power of tsunami." We realized danger of tsunami.

Cultivation of human resources who do not know actual work fields. Thus, experts say there is nothing more important than decisions by people who are at the actual places and we can see the importance of education of professionals who know work fields well. However, JR Company does not assign local workers to local places. JR Company assigns people to places where they do not come from. This is because the company has a purpose to make people to learn other communities because Sendai office is a large office which has 3 prefectures (Miyagi, Fukushima, and Yamagata). However, as "Basic Plan on Transport Policy" says, to make it become reality to recruit and educate people who assume transit, it is important to increase recruit of local people and assign them to local places and educate people who know work fields well.

Educating people who know work fields well. Employees are forced to transfer only by the reason that they are staying the same work places for a long time. We, workers' union, do not simply oppose transfers. However, if the company forces them to transfer because they are staying the same places

and ignore their wills, there will be no one who knows work places well. The company forces transfers to workers who do not want to go to other work places, on the other hand, the company does not allow transfers to workers who want to go to other places.

The company says it is able to make work places get active. However, Forced transfers decrease willingness to work and transfers could affect safety because transfers make union members feel dissatisfaction and anxiety. Forced transfers that ignore wills of workers will be unable to educate professionals who know work fields well. It is necessary to protect safety by educating professionals who know work fields well.

Moreover, they are lessons of disasters to consolidate a system that immediately alerts information of tsunami and to educate workers who can consider voices of local residences and can make decisions in actual places.

Increasing consciousness of disasters. No one knows when and where earthquakes and tsunami same as the Great East Japan Earthquake will happen. We are appealing to standardize signs. It is confusing that JR and municipals make different signs. Standardizing signs makes it possible to evacuate to higher places immediately.

Railway tracks on the coast need evacuation stairs which fit reality. Involved parties have to help each other such as arguments and drills by municipals, railway workers, and residents, standardizing signs, and installing evacuation stairs. It should be obliged all railway workers to improve judgment by on-site trainings and exit drills to get off the trains rapidly. Not only JR but also entire societies need drills to save lives and disaster educations by schools and companies.

We feel it will become necessary to make disaster education mandatory education in the future. Not passing down a story from generation to generation, but making consciousness of disasters common knowledge is the only way that we, who lost many people, can make lessons to succeeding generations. We will continue to act with the idea "lives are concepts of values."

In "prevention of disasters complementary with new stages" published by Land, Infrastructure and Transportation Ministry, it is said that it is important that residents and companies share a risk that they cannot protect only with facilities from the power of a top category, and that each people prepares and cooperates together so that we can create societies which stand up against disasters. We, as disaster prevention instructors, teach this philosophy to companies and municipals, and increase consciousness of disasters of ourselves.

Dangers are always around us. It is important to educate disaster prevention instructors who consider a problem as "a problem."

We realized through on-site explorations led by disaster prevention instructors that there are a lot to do to save lives.

It is necessary to increase sensitivity and discernment so that we can create a strong railway under disasters. We will enrich lessons from the Great East Japan Earthquake to a culture. We will save lives

and protect safety from a position of a workers' union, make hazard maps of maritime areas about tsunami, increase consciousness of disaster prevention of union members, and save lives of members and passengers.

Thank you.