Strategies for improving communication and support for foreign residents and tourists in Sapporo, Hokkaido

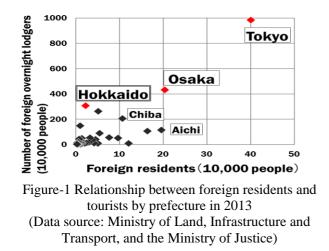
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1. Introduction

In recent years, the number of the foreign residents and tourists in Japan has been steadily increasing. In particular, when focusing on foreign tourists, it can be seen that their number grew from around 3 million in 1990 but it exceeded 13 million in 2014, which is the largest annual number ever for Japan. However, although more and more foreigners are visiting and living in Japan, the support for foreigners at the time of disaster may not be sufficient. After the Great Hanshin Awaji Earthquake in 1995, many problems arose related to the support of foreigners, and the need for disaster support was discussed, but no concrete solutions were taken. Furthermore, when the 2011 Great East Japan Earthquake occurred, many foreigners were confused by conflicting information and escaped overseas [1].

Hokkaido is facing similar conditions as the rest of Japan, with fast growth in the number of foreign tourists. However, as shown in Figure 1, it can be seen that, while the number of tourists is third overall among all prefectures, there are relatively few foreign residents. Consequently, in Hokkaido, it is supposed that foreigners may not be included in disaster prevention plans, and preparation of disaster support for foreigners is not advancing. As an example, when the first-ever heavy rain special warning was issued by Sapporo city on Sept. 11, 2014, during a huge rain storm, there was no information in English, and many foreigners were confused.

Considering these present conditions, the purpose of this study was to clarify the present conditions of disaster communication and support system for foreigners in Hokkaido through an investigation in Sapporo city, and to



suggest effective strategies for improving for foreign residents and tourists in the future.

2. Investigation methodology

The details of the investigation are summarized in Table 1. The study mainly focused on Sapporo city as the largest home of foreign residents and destination for tourists, and investigated the situation in the local government and businesses. Interviews were conducted with representatives from the Sapporo city government and local businesses that interact with foreigners in Sapporo, in order to clarify the present situation and how disaster communication and support are being carried out. In particular, at the Sapporo city government, interviews were carried out with the Disaster Countermeasures Department, and International Affairs Department, and Sightseeing and Convention Department, as they are responsible for both disaster and foreigner issues.

3. Investigation results

3.1 Sapporo city government

From the interview, it became clear that the Sapporo city government takes some disaster countermeasures for foreigners considering their various limitations (Table-2). The hazard map and disaster manual in English have been introduced mainly for foreign residents. As measures for both residents and tourists, Sapporo city places evacuation advisories in English on the city's official homepage, in cooperation with Disaster Countermeasures and International Affairs Departments. In addition, they are discussing the possibility of transmitting information through the city's Wi-Fi network in the future.

Table 1, Summary of the investigation	
Sapporo city government	
Sapporo subway	
Japan Rail (JR) Hokkaido	
Travel agency	
Hotel association in Sapporo	
2015/10/16 - 2016/1/14	
Semi structured Interview	
Disaster communication and support systems for foreigners at the time of disaster	

Table 1. Summary of the investigation

3.2 Local businesses

The disaster counter-measures of each business are summarized in Table 3. From the survey at JR Hokkaido, it became clear that guidance in foreign languages and correspondence at the time of abnormal events are not systematized now because of the sudden increase in foreign users. Meanwhile, Sapporo subway has some consciousness of safety management and introduced the "Subway Safety Guide" for foreign users. From the survey in the travel agency, it was clarified that many foreign tourists use agencies from their own country, so those agencies should be responsible for the safety. Finally, during the hotel association hearing, the need to develop a framework for correct information about transportation and disaster was discussed.

4. Analysis and improving strategies

4.1 SWOT analysis

Based on the hearing results, the present conditions were examined using SWOT (Strength, Weakness, Opportunity, Threat) analysis (Table4).

4.2 Improvement strategies

Using the results from SWOT analysis, various strategies for improving the disaster communication and support for foreigners in the future were proposed.

(1) Strategy for the disaster communication

In Sapporo, it is necessary to "arrange correct disaster information" and "inform foreigners of that information". For the former, it will be necessary to organize and expand the disaster information available in English. In this investigation, it became clear that information in English related to transportation and medical services are not enough, even though Sapporo city and the Japan Tourism Agency try to provide some correct information. As for the latter, it would be effective to provide the correct information at hotels, sightseeing spots, and transport facilities because these important contact points. In addition, utilization of communication through city Wi-Fi would also reach many tourists.

(2) Strategy for disaster support

As the disaster support, it will be necessary to add foreigners into disaster prevention measures in businesses that often have contact with them. Additionally, Sapporo city may need to make a cooperation system and safety confirmation system together with businesses to protect foreigner's safety as "one" Sapporo.

5. Conclusion

In this study, the present conditions of disaster support and communication for foreigners in Hokkaido were clarified, and disaster countermeasures for the future were suggested.

Table 2, Results of hearing with Sapporo city

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	Before disaster	After disaster	
For foreign residents	Hazard map Disaster manual Evacuation sign	Transmit information through	
For foreign tourist	Transmit information through Wi-Fi, Evacuation sign	Wi-Fi, and municipality home page	

Table 3, Results of hearing with local business

	Before disaster	After disaster			
JR Hokkaido	-	Transmit information using instruction board			
Sapporo subway	Safety guide Advertising "safety tips"	Evacuation instruction Correspondence by staff			
Travel agency	-	Confirming people's safety			
Hotel associati on	Instruct the way of evacuation	Evacuation instruction Confirming of people's safety			

Table4, SWOT analysis

Strength	Growing availability of Wi-Fi for	
	foreigner tourists;	
	Hazard map, disaster prevention	
	manual, and evacuation advisory	
	in foreign languages have already	
	been introduced	
Weakness	Budget and human resources are	
	limited;	
	There is little experience with	
	disaster in Sapporo	
Opportunity	Technology development	
	Japan Tourism Agency produces	
	Safety Tips (application and web	
	page)	
Threat	Increase in disasters by the	
	climate change	

Next, it will be necessary to consider, develop, and introduce measures to practically solve these problems considering the limited budget and human resources of the local government and businesses.

References

 Henry, M., Kawasaki, A., Meguro, K., "Foreigners' post-disaster relocation or evacuation from Japan and their disaster information gathering behavior after the 2011 Tohoku Earthquake", Journal of Social Safety Sciences, No. 18, pp. 373-380, 2012. (in Japanese)