

Research on decision-making evacuation from a tsunami

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The Indian Ocean Big Earthquake and Tsunami of 26 December 2004 had a lot of casualties. As you saw from pictures of this tsunami, it is very difficult to evacuate safely after a tsunami arrives at the beach. Therefore, it is necessary that people have the intention to evacuate early in order to reduce the human costs loss involved in a tsunami.

It is true, that the disaster information such as a Tsunami information and evacuation order is one of the factors in the decision-making regarding evacuation from a tsunami. However, even if disaster information is published, there are many people who do not evacuate. The reason given for this has to do with the problem of human's consciousness about disaster risk such as normalcy bias. In brief, people would decide to evacuate by not only these given factors (such as seismic intensity and disaster information) but also previous experiences (such as knowledge of tsunami and risk image). Therefore the decision just to communicate disaster information quickly is not enough to encourage people evacuation from a tsunami. It is therefore necessary to consider effective measures based on people's decision-making to evacuate.

In this study, we researched the individual evacuation behaviors on Kiihantou-oki earthquake tsunami and Toukaidou-oki earthquake tsunami on 5th September 2004. We then analyzed decision-making structure to evacuate from a tsunami, based on psychological factors such as risk image, sensory seismic intensity and disaster information such as evacuation orders. As a result, we realized that sensory seismic intensity and risk image could affect decision-making evacuation from a tsunami more than disaster information.

(255 words)