

(Katada: Tsunami Scenario Analysis by Simulator)

## Scenario Analysis of Measure for Tsunami Disaster Prevention by Using Comprehensive Tsunami Scenario Simulator

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In tsunami disaster, the scale of casualty is very different according to the scale of the earthquake, the equipment of the disaster prevention facilities, and resident's refuge behavior. Therefore, the overall measures that will achieve prompt resident refuge include: software" measures like disaster information transmission, refuge inducement, disaster education, and the equipment of disaster prevention facilities are all essential as part of the measures for tsunami disaster prevention.

A simulator was developed that expressed the disaster information transmission to residents, the resident's refuge behavior situation, and the scale of casualty by tsunami inundation. By using the residents refuge decision making model, this simulator can expressed the evacuation behavior that considers the resident's attribute and disaster prevention consciousness, and express the situation of the occurrence of casualty based on the result. Since this simulator can express a series of situation at the tsunami disaster level, it is possible to use it as a practicable strategy decision-making tool for the tsunami disaster prevention.

The various scenarios such as the changes in casualty according to the scale of the tsunami, the effect measurement of the information transmission to the resident by the administration and the influence on casualty scale because of the changes in the resident's disaster prevention consciousness in tsunami-prone area in Japan were analyzed. As a result, the findings obtained about the differences in the damage scale and effect of measures by various scenarios were very clear.

(232 words)