The application of simulation studies using HPC to disaster management: current status and future.

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In Central Disaster Management Council, estimations of damage by anticipated earthquakes have been conducted to plan measures for disaster management (preparedness, emergency response and recovery). Also, when a large earthquake occurs early assessments of the damage have been carried out immediately to grasp the situation of the disaster and to support decision-making for emergency response operations in central government. These estimations and assessments require high accuracy to develop more effective measures and to decide more appropriate operations.

It is indisputable that the sophistication of forecasting techniques of natural phenomena is necessary to mitigate human damage by encouraging residents to evacuate.

In this presentation, we will introduce our approaches described above, and would like to talk about what to expect from the application of simulation studies using High Performance Computing to the disaster management of earthquakes and tsunamis in particular.

Keywords: disaster management, damage estimation, HPC