Investigation on CGE Models for Disaster Impact Analysis: Implications form the Case Study of the 2011 Great East Japan Earthquake

Topic: 814B Special session: Disaster Impact Analysis

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CGE (computable general equilibrium) model is one of the promising approaches for estimating economic loss for disaster impact analysis. However, several arrangements of CGE model are required for carrying out realistic loss estimation. For example, stock losses, which are reported after the disaster to capture the direct damages, are utilized for the initial shock of CGE model, but the stock loss cannot capture the functional loss of production facilities due to just displacement of several machineries. This research discusses the ways for modifications on relatively standard CGE models to derive the disaster-specific CGE models from the sensitivity analysis of the real disaster.