

Interregional economic impact analysis of the Wenchuan earthquake, China

Topic: Input-Output analysis of disasters 2

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Loss and damage induced by catastrophic earthquakes have significant impacts not only on the disaster-affected area's economy but also on other regions outside the disaster area, which is adverse to regional sustainable development. The ripple effects, originate from imbalance between supply and demand in the regional economic system, can spread far beyond the region, and could have considerable impacts on other regions. An improved input-output model, incorporating interregional commodity flows and regional input-output relationships, was applied to evaluate the indirect losses in and outside the disaster areas caused by the Wenchuan earthquake, occurred in 2008. The magnitude and the extent of the indirect impacts in different spatial scale from this quake were analyzed, the impact mechanisms and economic vulnerability of the indirect loss in different provinces were also identified. The results show that, for worst-hit region, the trend of the Gross Regional Product had an obvious "V" type recovery trajectory, but it has a blooming trend in other regions surrounding the disaster-hit areas just after this quake, and for the whole country of China, the effects of this earthquake seems not very clear. These analytical results may be used to propose risk management strategies in the recovery and reconstruction periods in the following years.