The Discussion on the relationship between land use reform and disaster risk management

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According to the theory of disaster risk management，land use regulation could be an effective countermeasure to manage disaster risk. Especially after a large scale disaster, when reconsidering our hard efforts on disaster prevention and mitigation, we may say disaster loss could be reduced greatly if the disaster-affected area has a reasonable land use pattern before disaster. However, problem for us is land-use reform will cost too much and carry it out is difficult for the existing area already constructed by massive infrastructure and households.

As we know, land-use reform has been partly carried out in some disaster-affected areas, but it is still difficult for planners to implement the new land-use pattern due to the existence of people's risk perception bias, emotional factor and some other factors. Also it is tough tasks for government to rebuilt or replan the disaster-affected area without rationality in theory. Based on some theoretical study, the optimal land-use will not be stable and any allocation through a market mechanism is not optimal unless there is some intervention by government (Tatano, 2004). Therefore, my study focuses on how to reduce disaster risk through investigating land use regulations which have been made by government and doing scenario analysis by setting new land use policy to find better solutions, and then study how to make a reasonable land use pattern for disaster reduction based on new economic model.

This presentation is about the first step of my research.

In this presentation, through literature review and information collection, I briefly summarize the land use policy in different countries and discuss the relationship between land use policy and disaster reduction. I am trying to answer this question that does land use reform really make sense for disaster reduction and construct my research framework based on new economic geography (NEG) model and computable urban economic (CUE) model.