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### **[Abstract Title]**

A two-sector growth model of disaster risk reduction policies and co-benefit

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This study develops a model that aims at quantitative evaluation of disaster fiscal policy in developing countries. Specifically, we formulate a dynamic stochastic macroeconomic model that incorporates multiple hazards such as flood and drought and multiple disaster mitigation measures such as dikes, dams, and insurance. In addition to focus on allocation of limited resource between plural stocks and between pre-disaster prevention and post-disaster reconstruction, we also focus on “co-benefit” where disaster prevention facilities bring benefits not only to disaster prevention but also to production. The accounting framework is presented where total growth effect (TGE) of a targeted bundle of policies is decomposed into disaster risk reduction effect (DRRE) and co-benefit production expansion effect (CPEE). The study includes case studies targeting three African countries.

### **[Keywords]**

Disaster risk reduction policy, economic growth, developing country