

Impacts of constructing flood control dams on industrial investments in downstream regions in the case of Shiga Prefecture

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Abstract

There is the possibility that disaster risks prevent regions from developments through decreases in incentive to investments. We investigate the impacts of constructing flood control dams on location decision of industries in their downstream areas. To analyze the relationship, we focus on four flood control dams and 50 municipalities in Shiga prefecture, a suburban area located in middle-western Japanese main island, between 1965 and 2000. We conduct event study analyses, and find that constructing the flood control dams significantly increased the number of manufacturing plants of industries requiring large amount of physical capital in downstream areas. We consider that since physical capital requires long periods to recover their establishment costs, manufacturing category strongly depending on physical capital would sensitively react to the reduction of flood risks. We also find that the number of commerce stores increased in the dams' downstream areas. However, the effects required more than 10 years to be observed after the completion of flood control dams. We interpret that commerce industry could receive positive effects only after increases in manufacturing plants, because commerce industry receive the effects of decreases in flood risks through increases in manufacturing plants' demand for materials or tools to do their production activities.

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