

Economic Development and Natural Disasters: A satellite data analysis

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In this study we examine the impact of large-scale natural disasters on economic development. A major difficulty in exploring this relationship is the poor data quality on GDP per capita in low-income countries. Yet more than 90 percent of the disasters worldwide occur in these particular countries. To overcome this problem, we use satellite images of the night time light intensity in a specific country-year which is shown to be highly correlated with income per capita. After extensive testing on the sensitivity of the results, our main findings suggest that natural disasters reduce the light intensity in the short run. To be more precise, we demonstrate that climatic and hydrological disasters have a negative impact in developing and emerging market countries, while geophysical and meteorological disasters affect light intensity in industrialized countries. However, in the long-run most of the effect has disappeared. Finally, it turns out that the impact of a disaster depends on the size and scope of the natural catastrophe, the degree of financial development of a country and the quality of the political institutions present.



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