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The Structure of Economic Modeling of the Potential Impacts of Climate Change: Grafting Gross Underestimation of Risk onto Already Narrow Science Models

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Article Information

Abstract

Scientists describe the scale of the risks from unmanaged climate change as potentially immense. However, the scientific models, because they omit key factors that are hard to capture precisely, appear to substantially underestimate these risks. Many economic models add further gross underassessment of risk because the assumptions built into the economic modeling on growth, damages and risks, come close to assuming directly that the impacts and costs will be modest and close to excluding the possibility of catastrophic outcomes. A new generation of models is needed in all three of climate science, impact and economics with a still stronger focus on lives and livelihoods, including the risks of large-scale migration and conflicts.

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Additional Materials

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Q54 Climate; Natural Disasters; Global Warming

Q58 Environmental Economics: Government Policy