

Climate change policy making under uncertainty: extreme events and public health

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Climate change is impacting the world at an unprecedented rate. Abrupt changes in the environment have irreversible impacts not only on the natural systems but also on the human systems and societies. Irregular drought or flood, intensified heatwaves, global epidemics, and changes in mortality and morbidity associated to communicable or non-communicable diseases are some of the major public health problems associated with climate change. We study climate policy in the presence of potential public health crises as a result of climate related extreme events. We develop a theoretical framework to incorporate the impacts of extreme events on labor productivity through increase in morbidity and mortality. We quantify the climate change induced health damages in a well-known integrated assessment modeling framework and present the optimal policy options under uncertainty about extreme events.

Keywords: climate change, public health, uncertainty, extreme events