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[Abstract Title]

Understanding meteorological hazards and risks for disaster risk reduction under climate change

[Abstract]

Understanding hazards and risks due to extreme weather phenomena is critically important in order to consider disaster risk reduction under climate change. Quantitative representations of meteorological hazards are critically important in order to assess the impacts of such hazards not only for past disastrous events but also as for anticipated extreme events under future global warming. Furthermore, hazard information at local-scales is required because the resulting phenomena occur depending on their local geographic features. Since the Innovative Program of Climate Change Projection for the 21st Century (KAKUSHIN Program, FY2007-2012) funded by the Japanese Government, we have been studying the impacts of extreme weather under future global warming under the subsequent Program for Risk Information on Climate Change (SOUSEI Program, FY2012-2017) and the latest Integrated Research Program for Advancing Climate Models (TOUGOU Program FY2017-). Meteorological hazards such as heavy rainfalls, strong winds, and tropical cyclones were quantitatively examined as case studies. In this presentation, I will talk about how the quantitative representation of meteorological hazards helps to assess the impacts of the hazards for climate change adaptation and disaster risk reduction.



[Keywords]

meteorological hazard, climate change, climate risk, meteorological disaster