"Extreme" rain follows global warming

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Heavy rain is coming more often as global warming continues an increase that is outstripping scientists' predictions, according to a study.

The findings imply that warming-induced changes in the global water cycle could have more drastic impacts than ever imagined, its authors said.

The findings "reveal a distinct link between rainfall extremes and temperature, with heavy rain events increasing during warm periods," wrote the authors, Richard P. Allan of the University of Reading, U.K. and Brian J. Soden of the University of Miami, Fla.



Image; Courtesy NASA

The report is to appear in the Aug. 8 issue of the research journal Science.

Allan and Soden used satellite observations and computer simulations to study the relationship between tropical rainfall and changes in Earth's surface temperature and atmospheric moisture.

The observations point to a direct link between warmer climate and an increase in extreme precipitation based on both satellite data and simulations, they wrote. But the observed increase in extreme rainfall is larger than the increases predicted by simulations, suggesting the predictions are too low, they added.

The pair warned that it's crucial to find out the cause for this discrepancy as soon as possible in order to understand global warming and its effects on the water cycle. In past studies, scientists have also suggested global warming may worsen the impact of hurricanes and wildfires.

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