



Are Recent Hurricane (Harvey, Irma, Maria) Disasters Natural?

Kevin E. Trenberth
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Yes and no! Hurricanes are certainly natural, but human-caused climate change is supercharging them, and unbridled growth is exacerbating risk of major damages. The Earth's energy imbalance is caused by increasing greenhouse gases in the atmosphere and its partitioning between atmospheric, ocean, cryosphere and land heat reservoirs govern the rate at which the global climate evolves. Most of the imbalance, over 90%, goes into the ocean and accordingly ocean heat content (OHC) provides a primary indicator of climate change, along with sea level rise. 2017 was the warmest year on record for the global OHC down to 2000 m depth. It fuels storms of all sorts and contributes to very heavy rain events and flooding. The observed increases of upper OHC supports higher sea surface temperatures and atmospheric moisture, and fuels tropical storms to become more intense, bigger and longer lasting, thereby increasing their potential for damage. At the same time sea level is also steadily rising, increasing risks from coastal storm surges. These climatic changes are taking place against a background of growing habitation along coasts, which further increases the risk storms pose to life and property. The damage and loss of life from such storms does not have to be disastrous, however, if there is adequate preparation through better building codes, drainage systems, shelters, and evacuation plans. We have the options of stopping or slowing climate change from humans, and/or adapting to and planning for the consequences, but we are not doing enough of either! Harvey in Houston, Irma in the Caribbean and Florida, and Maria in Puerto Rico are excellent cases in point of the tragedy of global warming.

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<http://www.fin.ucar.edu/it/mms/fl-live.htm>

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Thursday, 17 May 2018, 3:30 PM

Refreshments 3:15 PM

NCAR-Foothills Laboratory

3450 Mitchell Lane

Bldg. 2, Main Auditorium, Room 1022