

Warming World Makes Droughts and Wet Events More Frequent and Intense

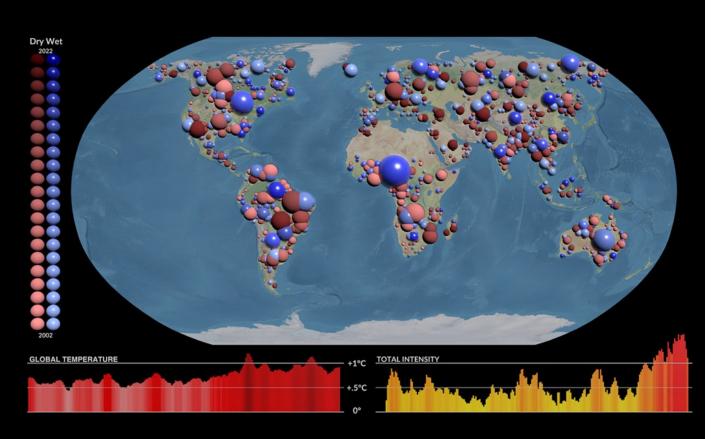


Droughts and flooding are predicted to become more frequent and severe with climate change, but this has been difficult to measure. A recent study applied a new approach, making use of observations from the GRACE and GRACE-FO satellite missions, to identify and quantify wet and dry extreme events around the world over the past 20 years.

Results reveal that extreme event intensity – a metric that combines extent, duration, and severity of extreme events – is highly correlated with global mean temperature, more so even than with El Nino and other climate indices.

This suggests that as the world continues to warm, we can expect to see more frequent and more severe droughts and extreme wet events.

Rodell, M., Li, B. Changing intensity of hydroclimatic extreme events revealed by GRACE and GRACE-FO. *Nat Water* (2023). https://doi.org/10.1038/s44221-023-00040-5



In this image, the color of the dot indicate if it is a wet or dry event, and the size of the dot shows t

NASA Feature: https://www.nasa.gov/feature/warming-makes-droughts-extreme-wet-events-more-frequent-intense