

Is Extreme Weather on the Increase?



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Outline of my talk

1. Introduction & definitions
2. The physics of extreme weather
3. Extreme weather types & trends
4. Attribution of extreme weather
5. [Conclusions / Wrap-up](#)

And so... are extreme weather events on the increase?

- Heatwaves? Yes ✓
- Wildfires? Yes ✓
- Cold spells? No, but it depends ✗
- Rain & floods? Yes, but it depends ✓
- Windstorms? Yes, but it depends ✓
- Coastal floods? Yes ✓
- Tornadoes? No, not generally ✗
- Hail / Lightning? Insufficient data ?
- Marine heatwaves? Yes ✓
- Various compound events? Yes ✓



Extreme weather: Wrap-up

1. Extreme weather... **lots** of different types!
2. Lots of them are **increasing** (but not all) ...
depends on **location, duration, intensity**...
3. Complex feedbacks & multiple drivers of risks & hazards -> “**compound events**” (final impact greater than the sum of each individual event)
4. **Dangerous underestimation** of some extreme weather e.g. heatwaves, wildfires



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THANK YOU FOR YOUR ATTENTION!

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Selected citations, sources & references for further reading:

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