



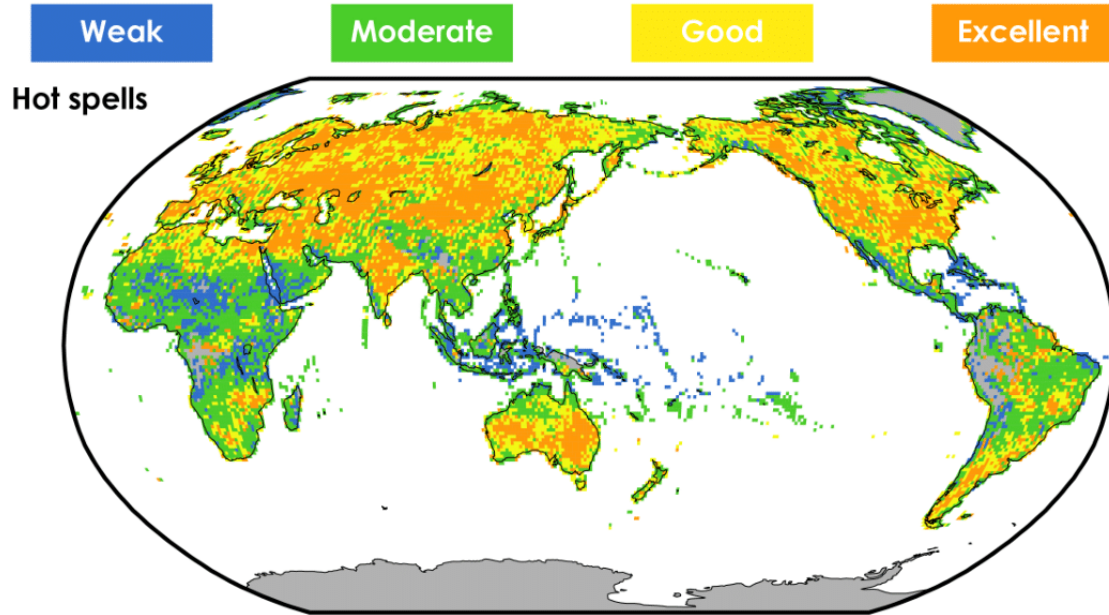
# Weather and climate information to facilitate action on heat

Hannah Nissan



International Research Institute  
for Climate and Society  
EARTH INSTITUTE | COLUMBIA UNIVERSITY

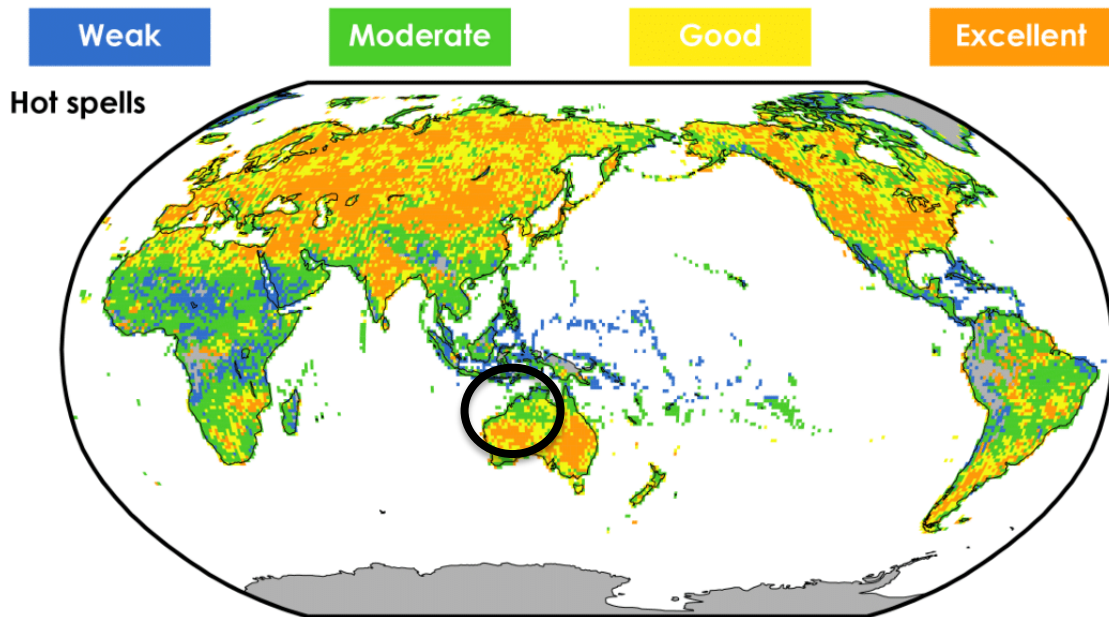
# How good are weather forecasts for heat?



3 day forecast  
ECMWF model  
vs  
ECMWF analysis

Thomson & Mason (2018) *Climate Information for Public Health Action*

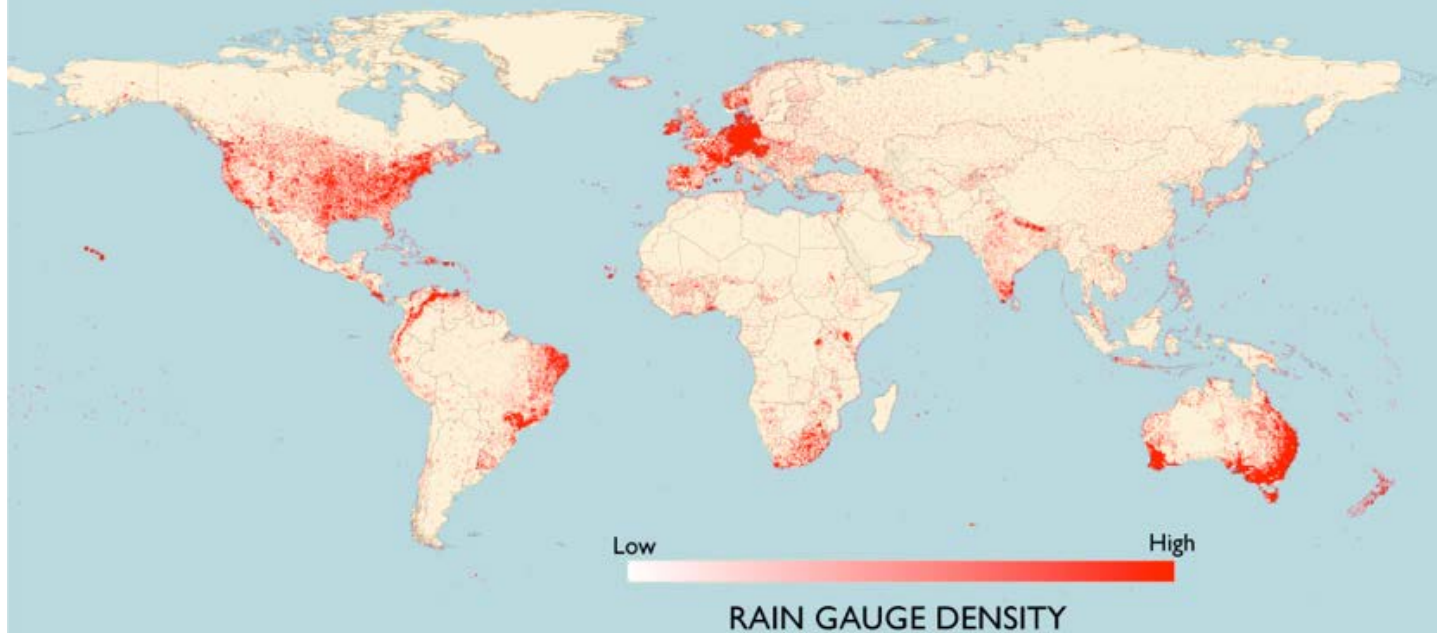
# How good are weather forecasts for heat?



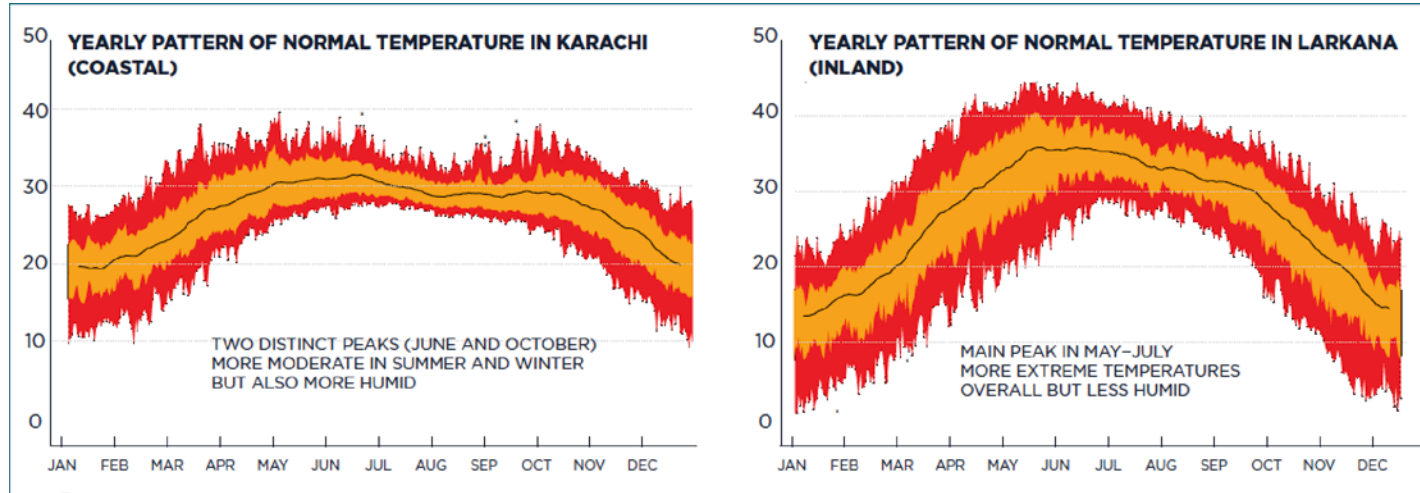
3 day forecast  
ECMWF model  
vs  
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Thomson & Mason (2018) *Climate Information for Public Health Action*

# Data divide



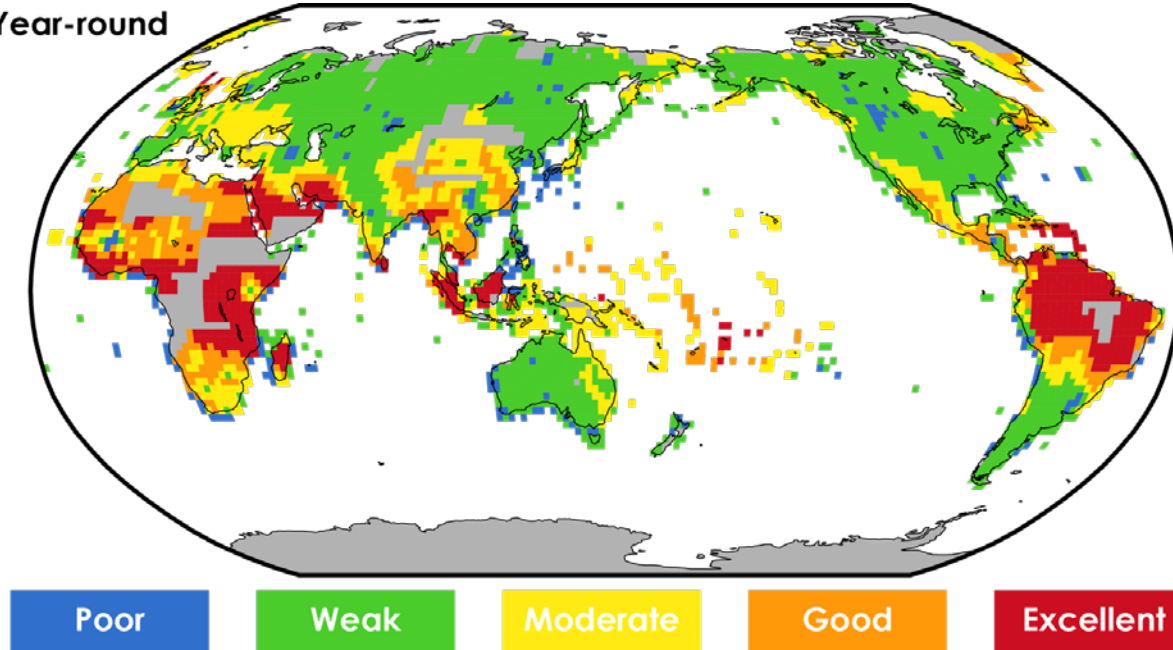
# Exploiting seasonality



Thompson (2018). *START Fund*.

# How good are seasonal temperature forecasts?

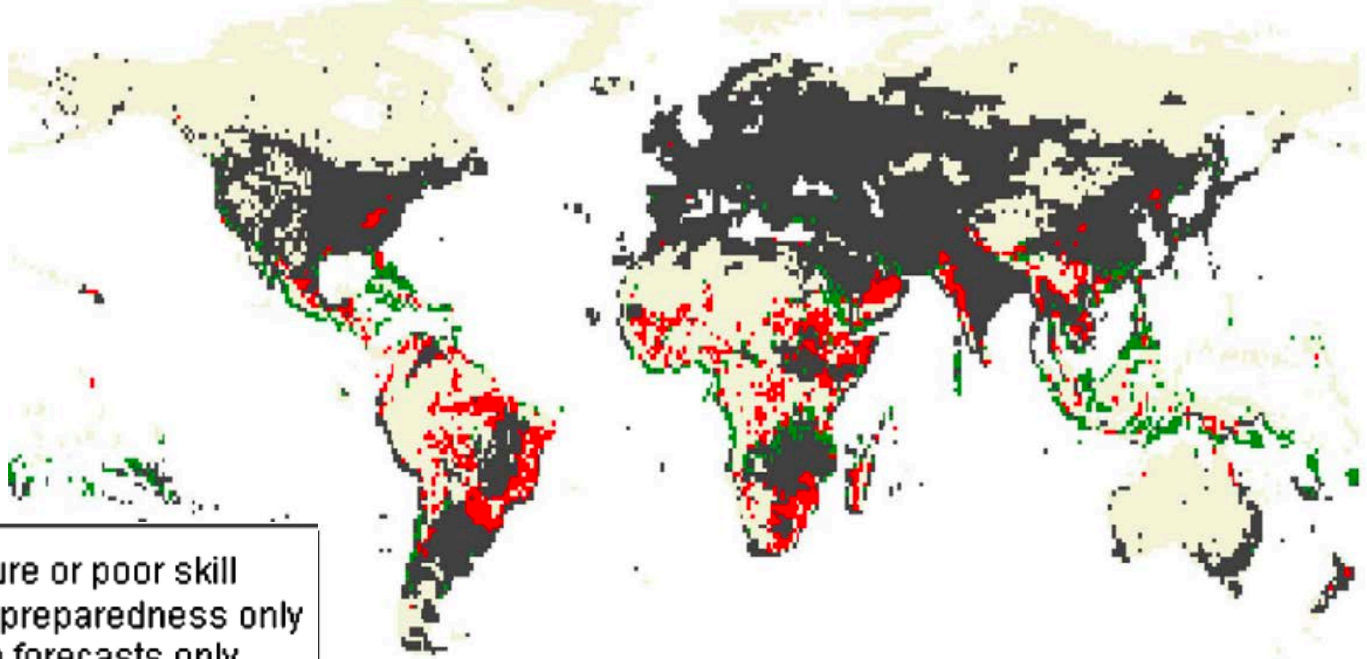
Year-round



Thomson & Mason (2018) *Climate Information for Public Health Action*

# A mix of weather and climate services

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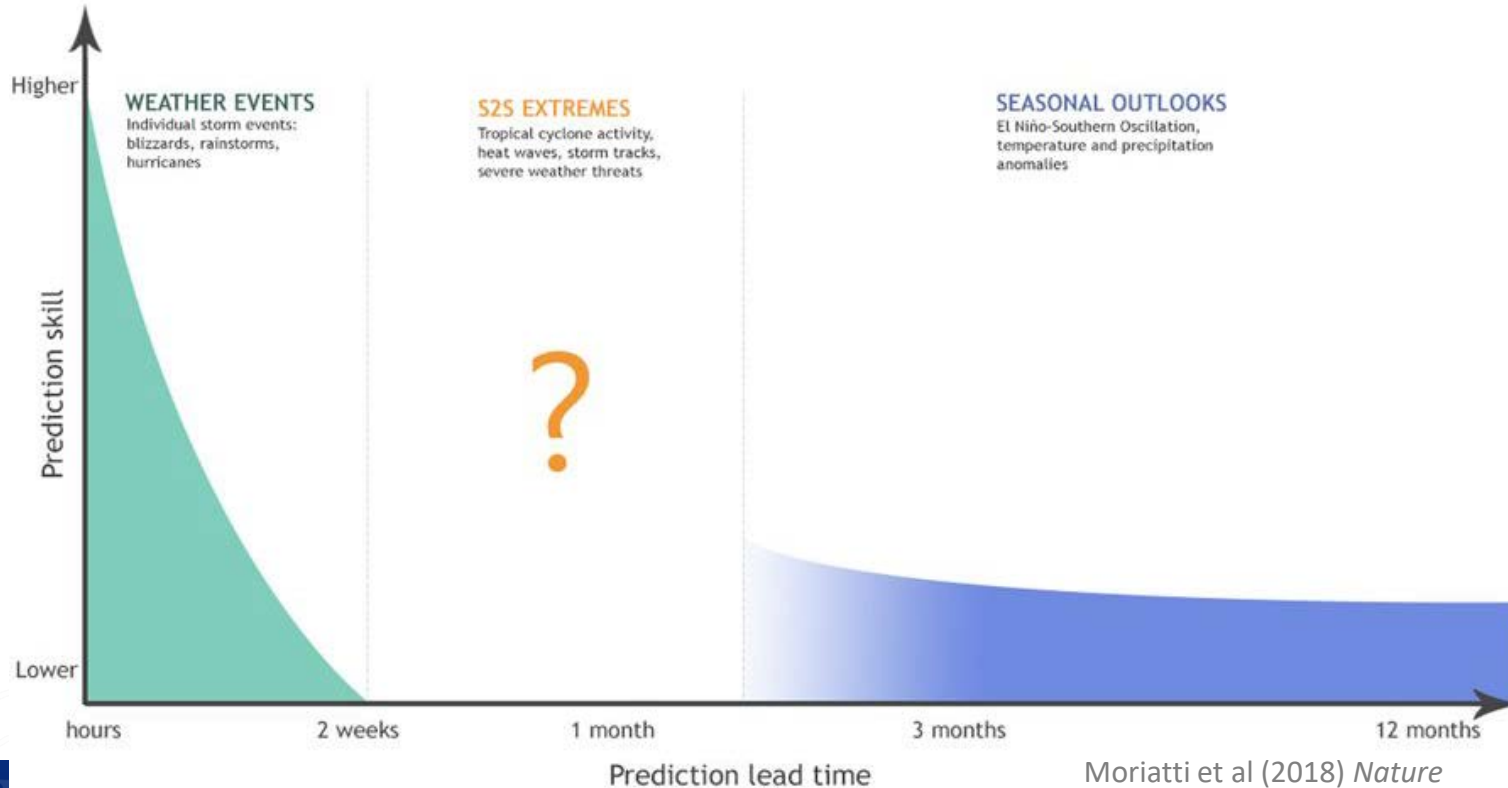


- No exposure or poor skill
- Seasonal preparedness only
- Short-term forecasts only
- Both

*Coughlan de Perez et al (2018) Env. Res. Lett.*



# Sub-seasonal forecasts: bridging weather and climate

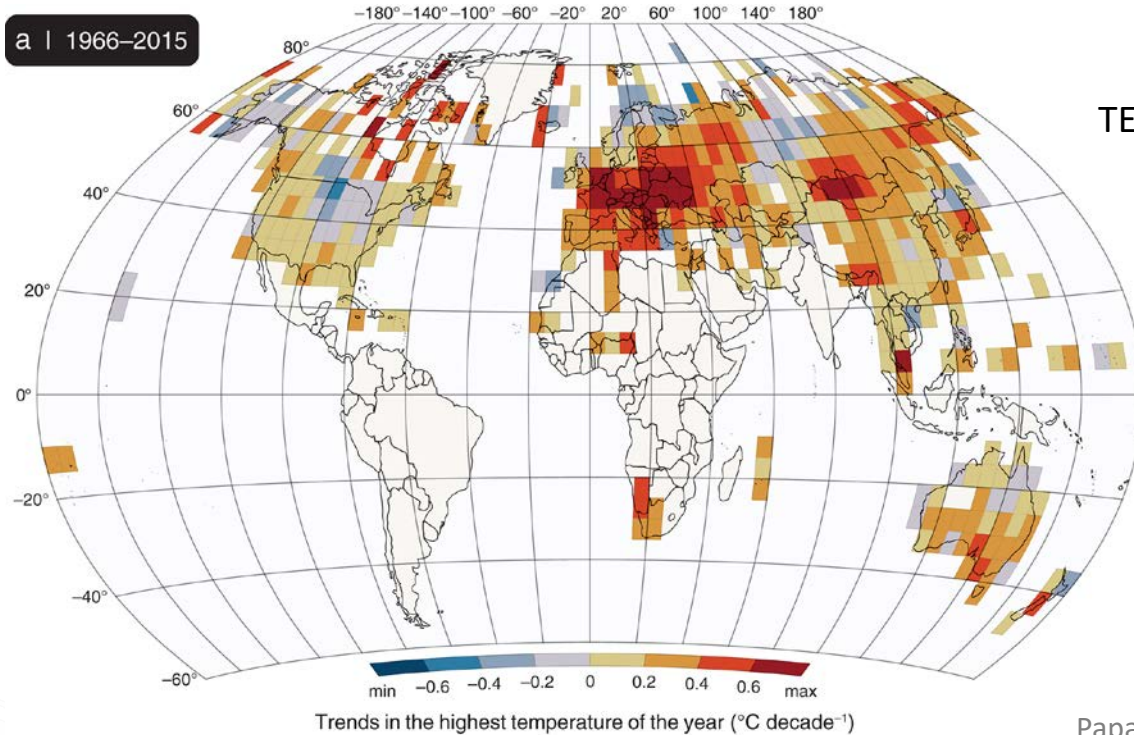


Moriatti et al (2018) *Nature*

Adapted from: [iri.columbia.edu/news/qa-subseasonal-prediction-project](https://iri.columbia.edu/news/qa-subseasonal-prediction-project)



# Extreme heat in a changing climate

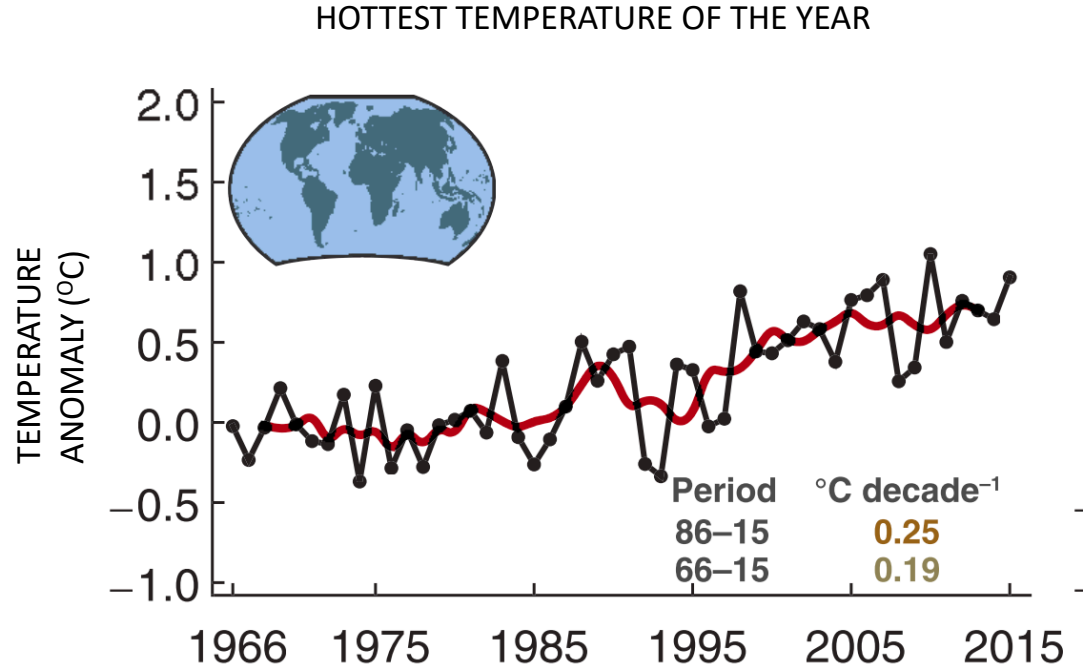


TRENDS IN HOTTEST  
TEMPERATURE OF THE YEAR

$^{\circ}\text{C per decade}$   
1966–2015

Papalexiou et al (2018). *Earth's Future*.

# Extreme heat in a changing climate



Papalexiou et al (2018). *Earth's Future*.

# Thank You

[hannah@iri.columbia.edu](mailto:hannah@iri.columbia.edu)

<http://iri.columbia.edu>



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