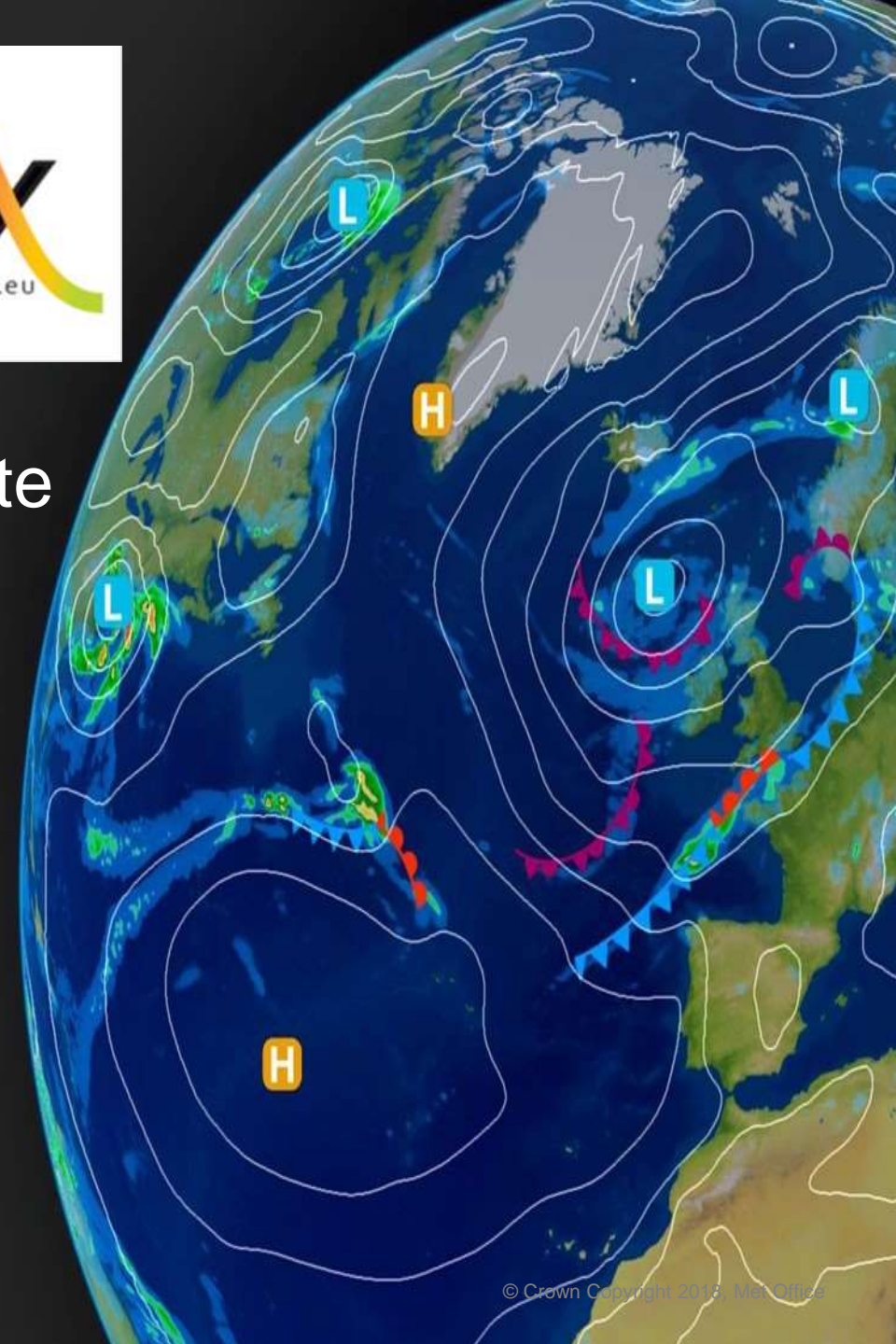


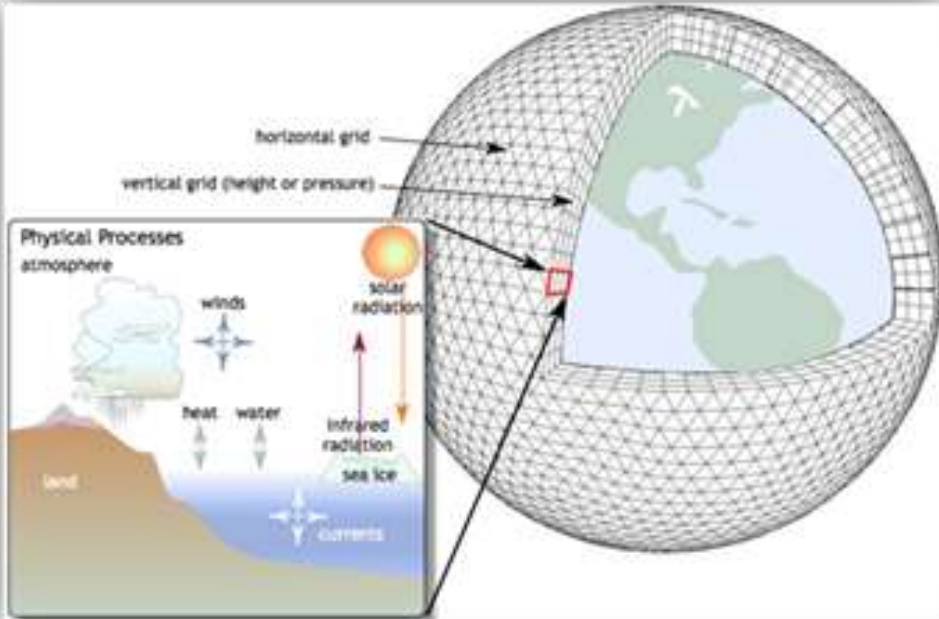
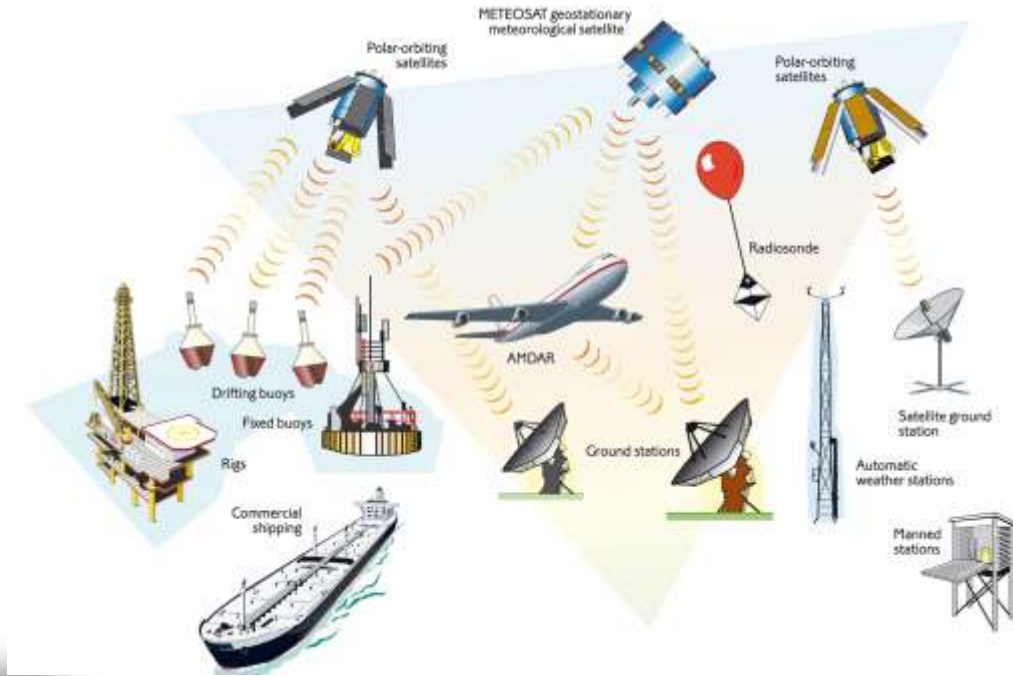
Impacts of high-end climate change in Europe and beyond

Prof Richard Betts

11th Meeting of the Community of Users
on Secure, Safe and Resilient Societies
Brussels, 6th June 2018



Climate models: experimenting on Earth inside a computer

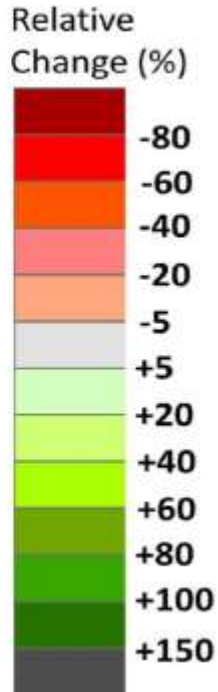
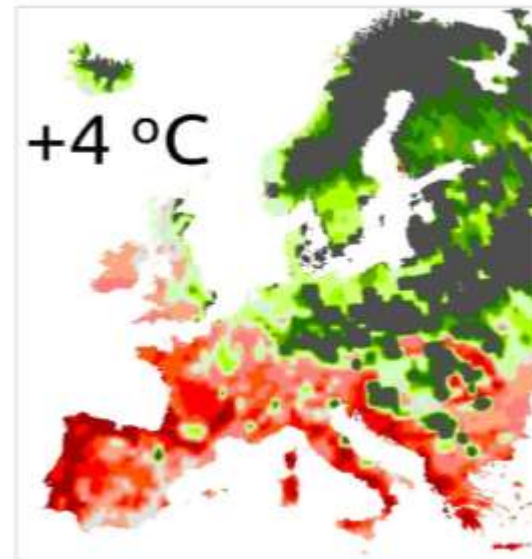
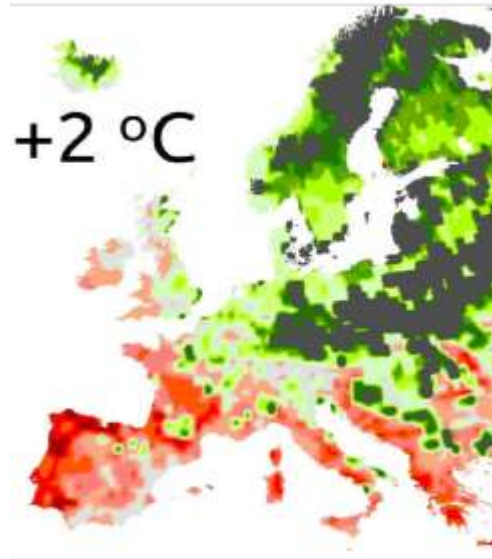
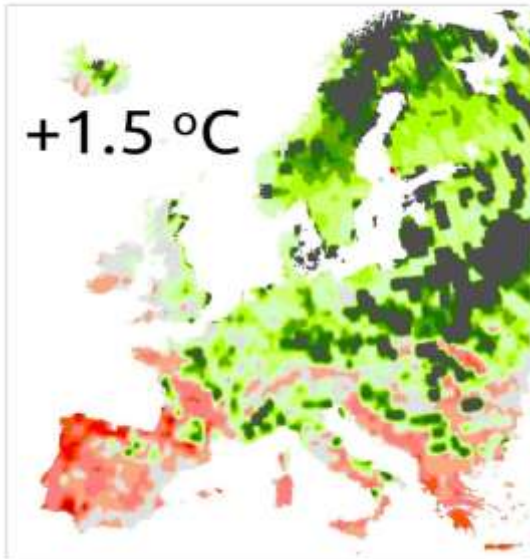




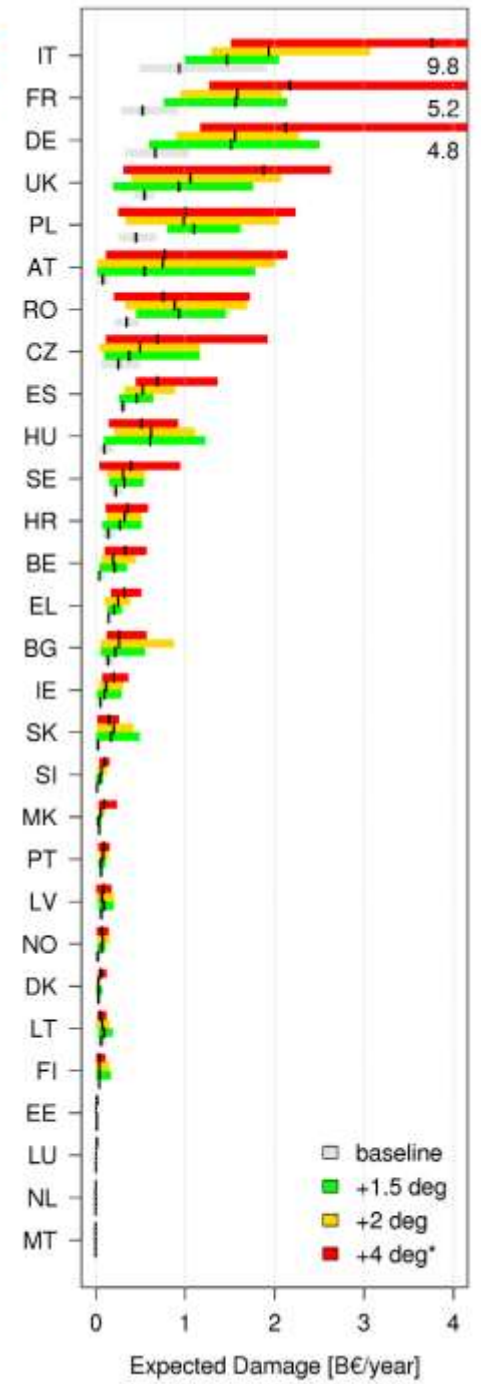
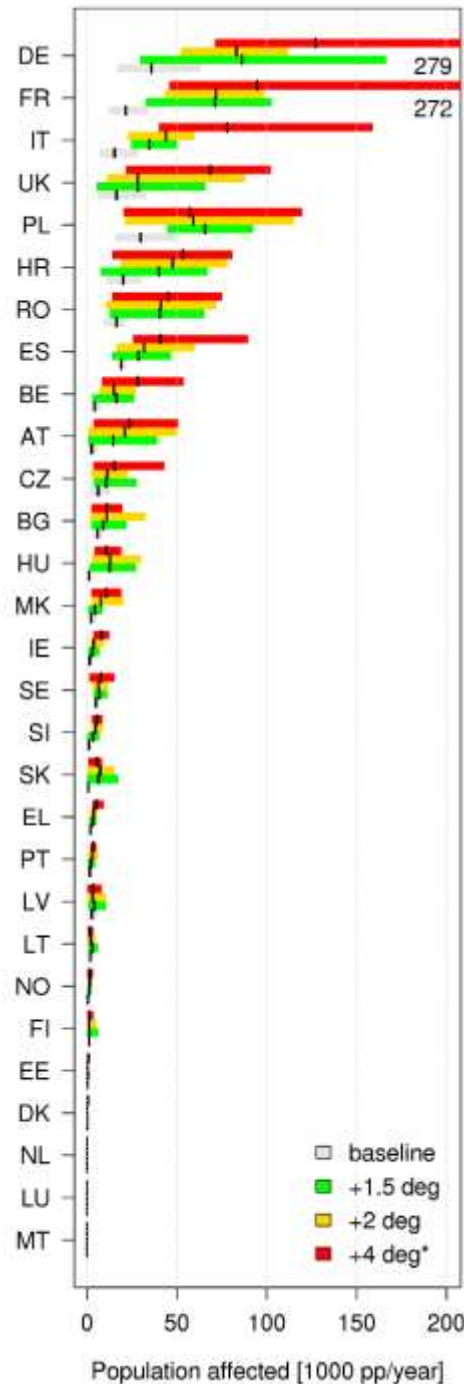
JET STREAM



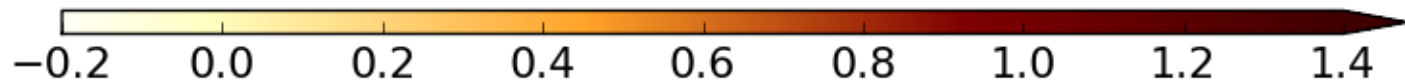
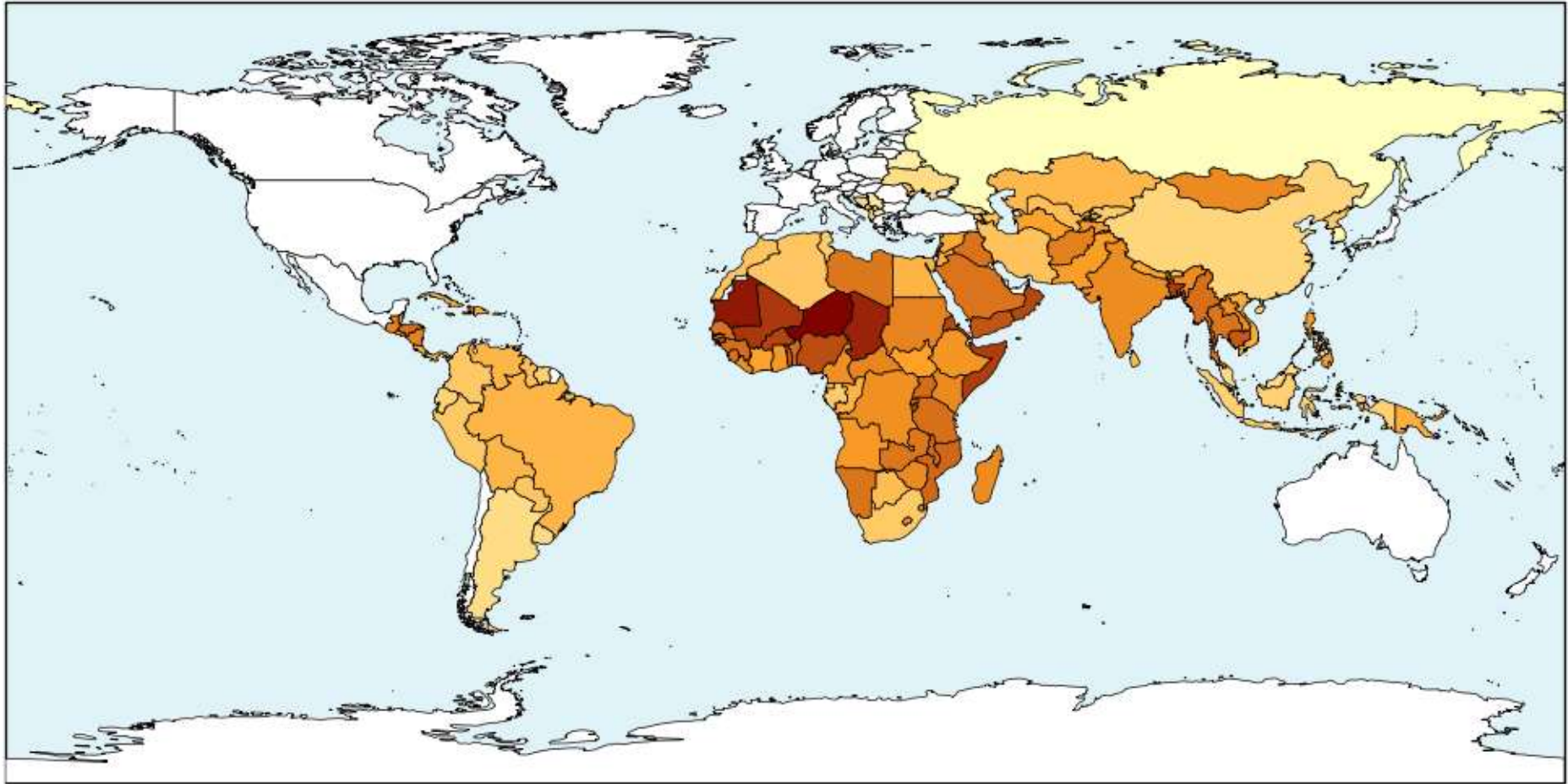
Drought: changes in summer river flows with different levels of global warming



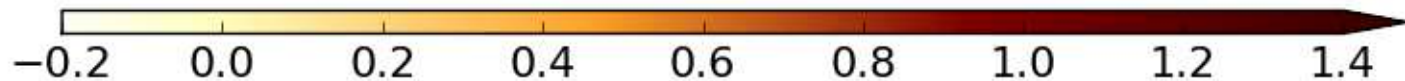
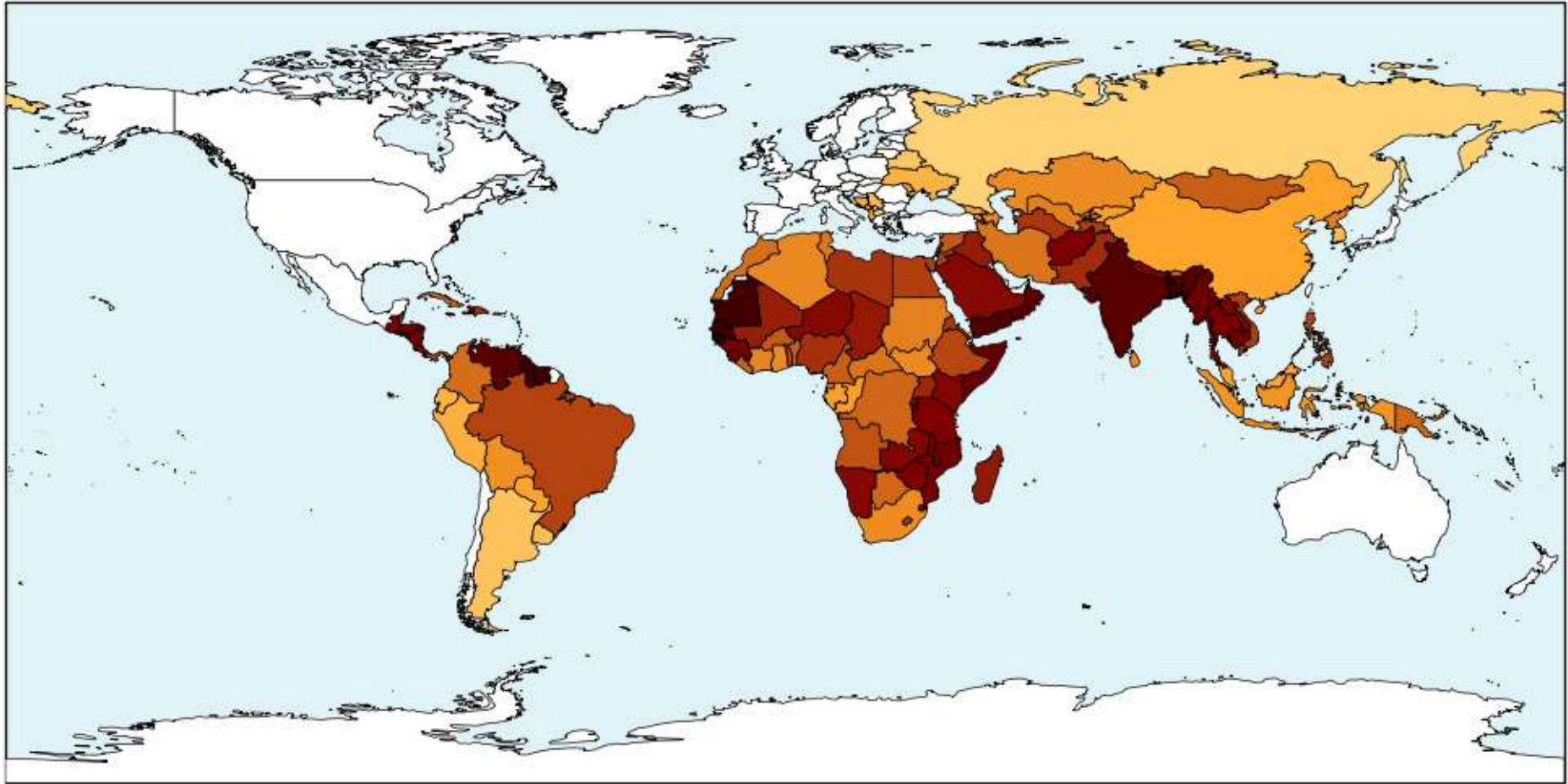
River flooding: Country-level changes in population affected and damage costs



Hunger and Climate Vulnerability Index (present day)

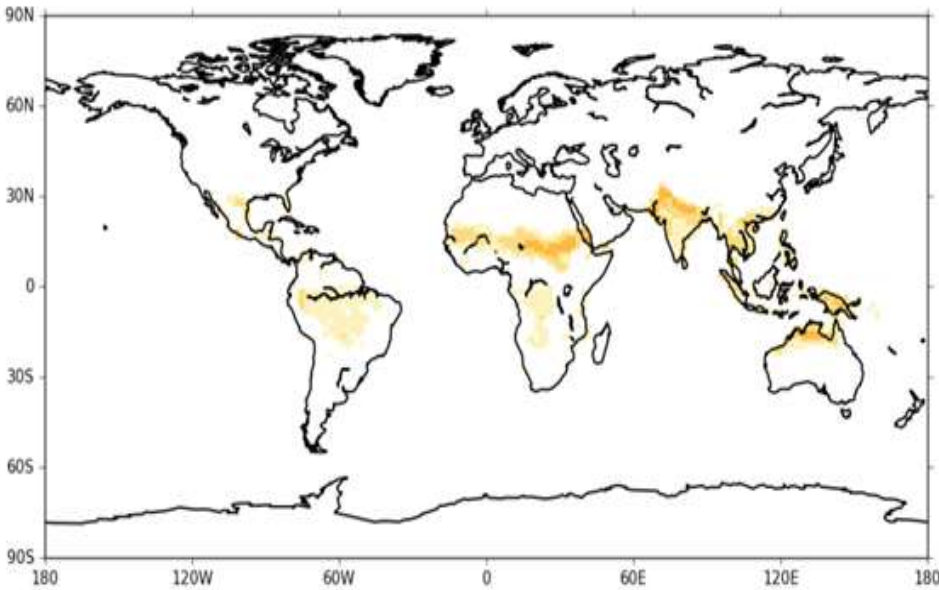


Hunger and Climate Vulnerability Index (4°C global warming)

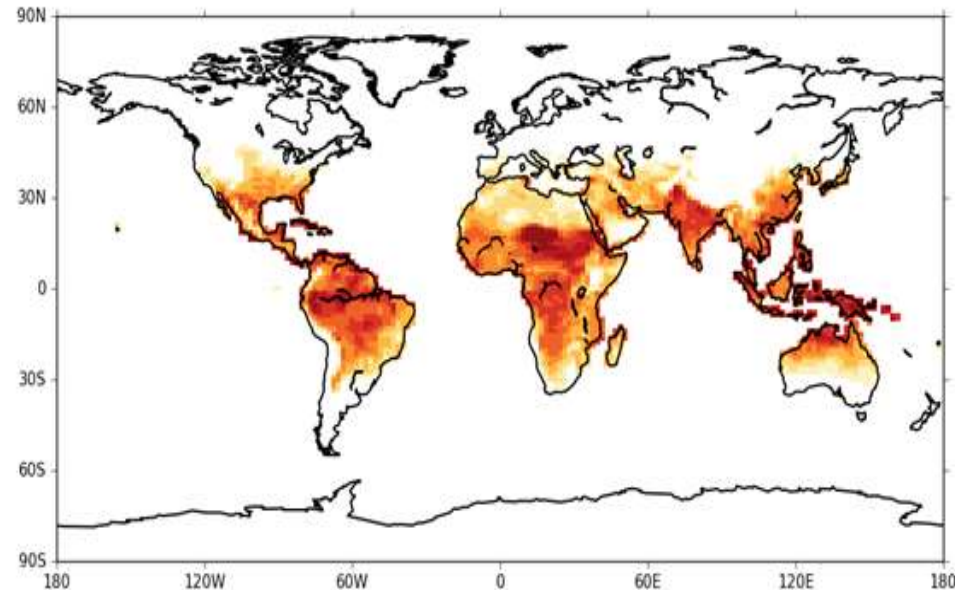


Heat stress

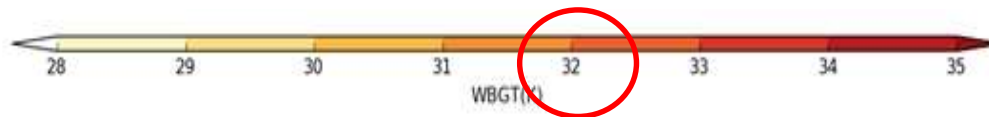
Present day



4°C global warming



Maximum wet bulb globe temperature
(°C) in hottest summer month



32 = "Very high risk of heat casualties"

High-end climate impacts & extremes

