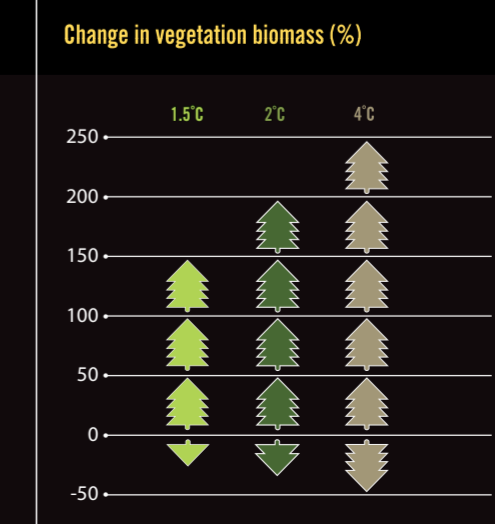
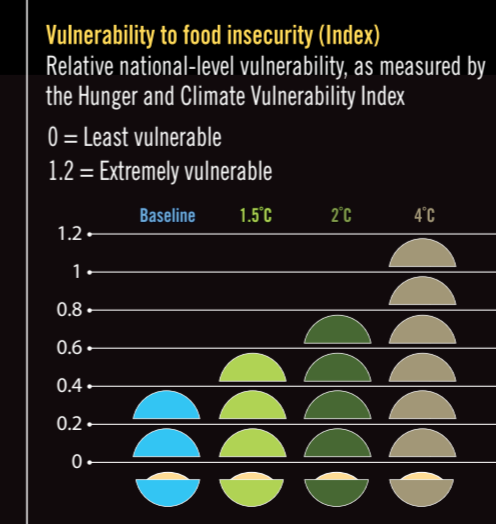
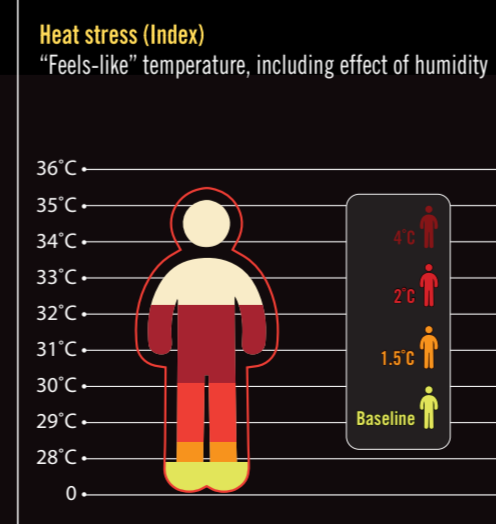
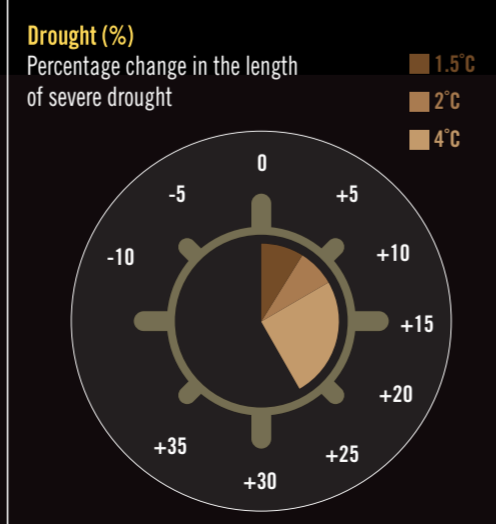
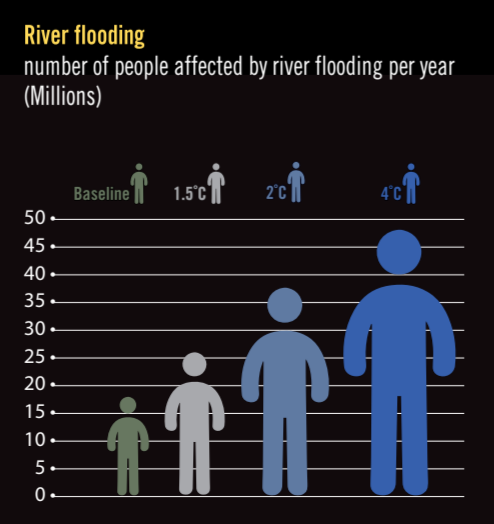


Impacts of Climate Change at 1.5°C, 2°C and 4°C Global Warming



These estimates of climate change impacts were calculated using a set of global climate model simulations updated from those presented in the IPCC 5th Assessment Report. Changes in local climates projected by these models were used to calculate impacts in locations across the world. Heat stress is indicated by Wet Bulb Globe Temperature, calculated from a combination of temperature and humidity. Vulnerability to food insecurity is calculated using changes in the length of time under extremes of precipitation representing floods and droughts, along with other food security relevant indicators. Number of people affected by river flooding is calculated from a river flow model and statistical relationships between high river flows and people flooded. Time under severe drought uses a locally-defined definition of severe drought based on low river flows. Vegetation biomass is simulated with a global vegetation model.

For each impact quantity, the magnitude of impact is shown for global warming of 1.5°C, 2°C and 4°C global warming relative to pre-industrial. Where appropriate, the present-day level of impact is shown for context.



Change in surface temperature at 2°C global warming relative to pre-industrial climate

+ Celsius

+ Fahrenheit

These projections were made as part of the research project HELIX (High-End climate Impacts and eXtremes)

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