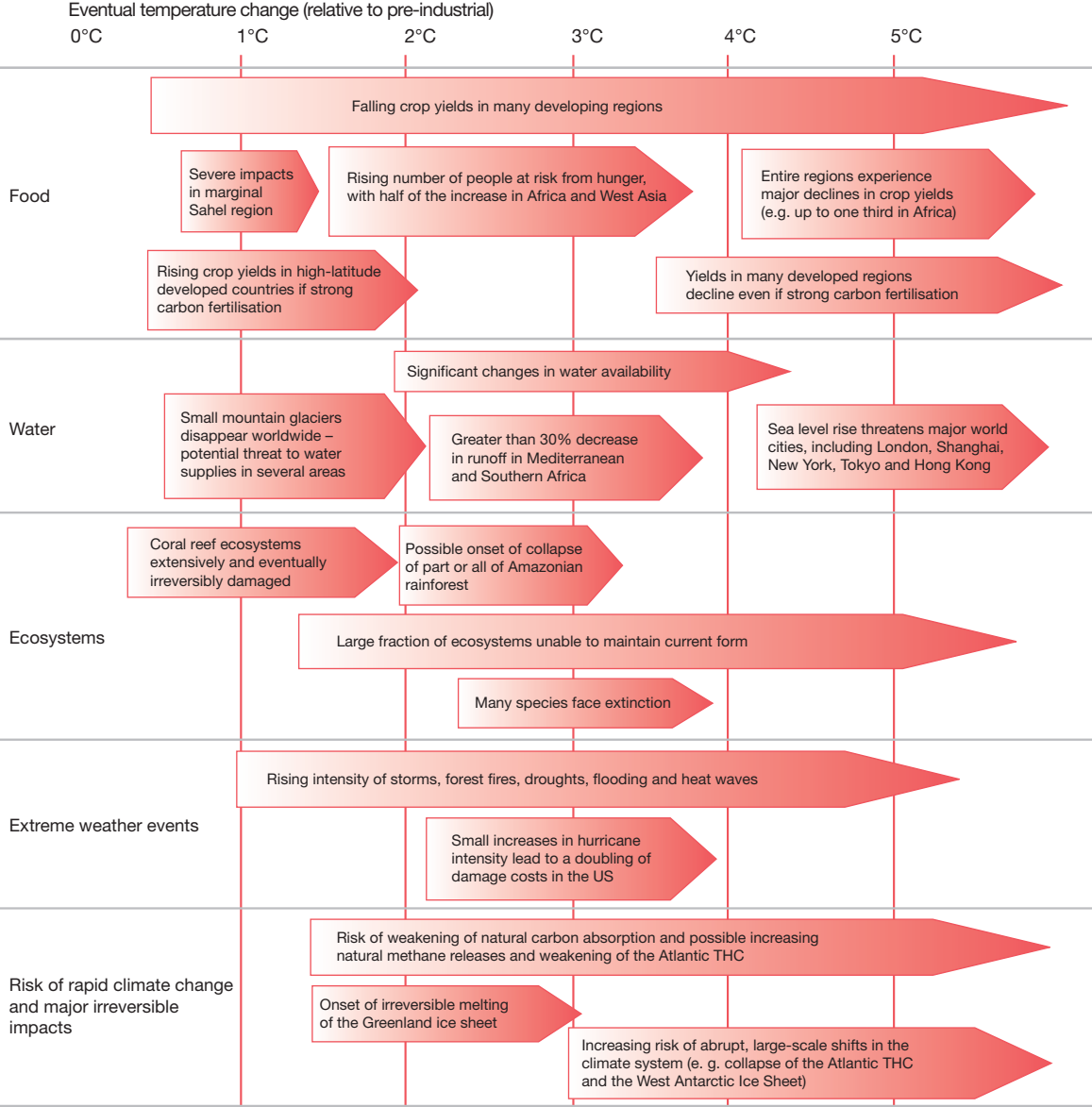
Eventual temperature change (relative to pre-industrial)
0°C
1°C
2°C
3°C
4°C
5°C
Food
Falling crop yields in many developing regions
Severe impacts in marginal Sahel region
Rising number of people at risk from hunger, with half of the increase in Africa and West Asia
Entire regions experience major declines in crop yields (e.g. up to one third in Africa)
Rising crop yields in high-latitude developed countries if strong carbon fertilisation
Yields in many developed regions decline even if strong carbon fertilisation
Water
Significant changes in water availability
Small mountain glaciers disappear worldwide – potential threat to water supplies in several areas
Greater than 30% decrease in runoff in Mediterranean and Southern Africa
Sea level rise threatens major world cities, including London, Shanghai, New York, Tokyo and Hong Kong
Ecosystems
Coral reef ecosystems extensively and eventually irreversibly damaged
Possible onset of collapse of part or all of Amazonian rainforest
Large fraction of ecosystems unable to maintain current form
Many species face extinction
Extreme weather events
Rising intensity of storms, forest fires, droughts, flooding and heat waves
Small increases in hurricane intensity lead to a doubling of damage costs in the US
Risk of rapid climate change and major irreversible impacts
Risk of weakening of natural carbon absorption and possible increasing natural methane releases and weakening of the Atlantic THC
Onset of irreversible melting of the Greenland ice sheet
Increasing risk of abrupt, large-scale shifts in the climate system (e. g. collapse of the Atlantic THC and the West Antarctic Ice Sheet)