

Under a BAU scenario, the stock of greenhouse gases could more than treble by the end of the century, giving at least a 50% risk of exceeding 5°C global average temperature change during the following decades. This would take humans into unknown territory. An illustration of the scale of such an increase is that we are now only around 5°C warmer than in the last ice age.

Such changes would transform the physical geography of the world. A radical change in the physical geography of the world must have powerful implications for the human geography - where people live, and how they live their lives.

Figure 2 summarises the scientific evidence of the links between concentrations of greenhouse gases in the atmosphere, the probability of different levels of global average temperature change, and the physical impacts expected for each level. The risks of serious, irreversible impacts of climate change increase strongly as concentrations of greenhouse gases in the atmosphere rise.