



5. There is a good chance to avoid such dangerous climate change if the anthropogenic warming is limited to 2 °C, which means - above all - that atmospheric CO₂ concentrations must be confined to values below 450 ppm.



6. This, in turn, requires to reduce industrial greenhouse gas emissions by about 1% per annum throughout this century. Recent socioeconomic analyses, taking technological and industrial innovation into full account, indicate that a reduction would delay global welfare growth till 2100 by just three months.



7. The confinement of global warming to 2°C and the adaptation to the residual, significant impacts nevertheless asks for a re-invention of modern society that especially defines urbanity and rurality in novel ways.

SEVEN PILLARS OF CLIMATE CHANGE WISDOM

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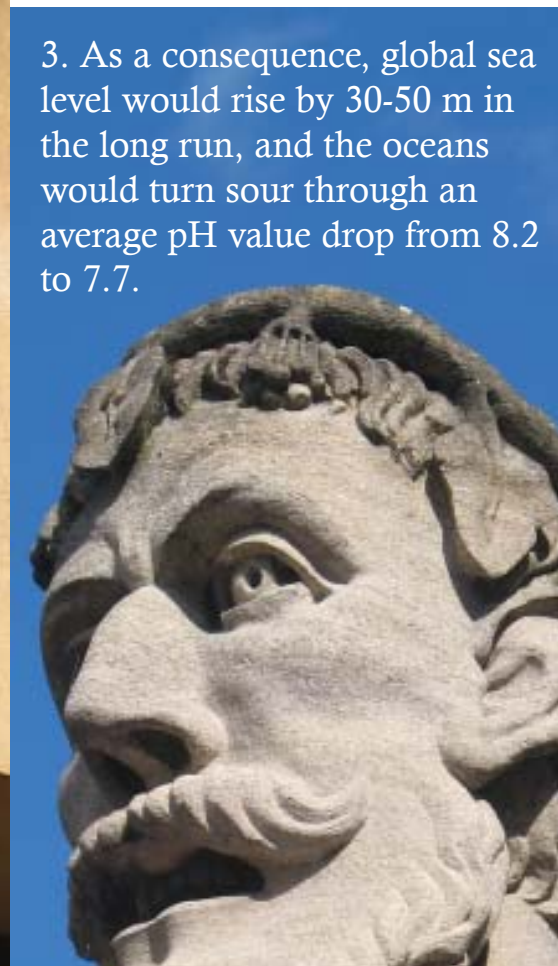
TippingPoint 2006



1. Human activities have produced atmospheric greenhouse gas levels that considerably transcend the natural concentrations of the last several million years. In particular, the CO₂ concentration has risen from about 270 ppm in the year 1750 to about 380 ppm today.



2. If "business as usual" continues, the world could heat up by about 5°C till 2100. This is roughly the natural temperature difference between an ice age and a warm stage of our planet. Thus humanity would create an unprecedented "fire age".



3. As a consequence, global sea level would rise by 30-50 m in the long run, and the oceans would turn sour through an average pH value drop from 8.2 to 7.7.



4. In addition, unabated climate change could flip a number of "tipping elements" in the planetary machinery (like the Amazon rainforest, El Nino, or the Indian monsoon) into a different state and trigger, in the worst case, a "runaway greenhouse dynamics" through positive feedbacks and teleconnections.