

## ***How many billions get to die?***

*“The science says that 6 billion people will die this Century as a result of climate change. That’s the trajectory we’re on.”* This is what Roger Hallam of ‘Extinction Rebellion’ told Stephen Sackur of [‘BBC Hardtalk’ live on-air, on 15th August 2019](#). There has been a predictable reaction to this statement; it is false as the science says no such thing and there is no peer-reviewed literature and certainly no data to support it and so on.

However, professional scientists have been strangely quiet throughout this latest contretemps. A secondary debate has spun-off where lower estimates of the death toll are considered, but any idea that these have been generated or assessed with any meaningful data to support them is also false. There is one exception, however. That is the Scenario ‘Representative Concentration Pathway 8.5’ (RCP 8.5) from the United Nations Intergovernmental Panel on Climate Change (IPCC) in its 5th Assessment Report (AR5) published in 2015, one of the most peer-reviewed scientific pronouncements in history.

[RCP 8.5 is the highest of four scenarios](#). In RCP 8.5, CO<sub>2</sub> concentration and temperature levels rise to be the equivalent of those at the time of the Permian Extinction 251 million years ago. In April 2017 [Nature magazine](#) drew attention to the connection between the Permian Extinction and RCP 8.5. In his book [‘When Life Nearly Died’, Michael Benton](#), suggests that the extent of biological extinction at this time was around 95%, so if anything, [the death toll stated by Roger Hallam may have been too low](#).

During a six-year preparation assessing most of the peer-reviewed literature and climate-modelling considered relevant, the final report opened with a ‘Summary for Policy Makers’ (SPM). This was framed in terms of [the lowest and the highest of four possible temperature rises](#) in degrees Celsius - namely RCP 2.6 and RCP 8.5. RCP 2.6 projected an outcome of roughly 2° C, while RCP 8.5 roughly 10° C. Simply speaking, the hope aimed at ‘Policy-Makers’ was that we (humanity) would follow the emissions reduction pathway in RCP 2.6 while the fear was we might for whatever reason, follow the pathway in RCP 8.5. *The safer temperature outcome of 1.5° C as in the Paris Agreement of 2015 was not even mentioned.*

In 2019 the CO<sub>2</sub> emissions trajectory we are still on is at or even slightly above that in RCP 8.5. So in this context, Roger Hallam’s figure is perhaps slightly below [what real life data already indicates](#). We are adding ~100 tonnes of carbon to the global atmosphere every second & there is no precedent anywhere for this rate. Compliance with UNFCCC/Paris-Agreement [requires subtracting carbon from the atmosphere at over twice that rate](#).

Yet another thing to worry about is that the rates of change cited in RCP 8.5 may well also have been too slow, as 95% of the integration of positive feedback effects (i.e. at [potentially uncontrollable acceleration-rates](#)) was omitted from the climate model runs upon which the RCP scenarios were based. This was strongly [denied in Parliament by the UKMO](#) in 2013, but subsequently [confirmed in a letter from DECC in 2016](#).

Is this latest chapter in the story *“How Many Billions Get to Die”*, one of the reasons why climate scientists have been so quiet? Including the current death-toll already due to man-made climate change, they could well be caught amongst the first hundreds of millions to lose their jobs and even their lives if these accelerating trends continue much further.