

Editor's pick

Unlikely, extreme climate outcomes are still possible

14 January, p 28

From Spencer Weart, Hastings-on-Hudson, New York, US
Graham Lawton does well to point out that a civilisation-destroying climate catastrophe with warming of 4°C to 5°C, also known as the "business as usual" scenario, is no longer the most likely outcome, if indeed it ever was.

However, as he acknowledges, there is much uncertainty in our understanding of the climate system. Assessments say that, under current global policies, the most likely rise by 2100 will be about 2.7°C. But that is only the midpoint of a range, with a roughly 5 per cent risk that the rise will go somewhere above 3.5°C.

If we get that much heating, it would still be hard to sustain an even partially prosperous and liberal civilisation. Faced with this all-too-plausible risk, the world needs to accelerate its efforts. As a noted climatologist once said: "Nobody would board an aircraft with a 5 per cent risk of crashing."

Why a space sunshade isn't such a bright idea

7 January, p 38

From Arthur Dahl, president of the International Environment Forum, Geneva, Switzerland
There is a fundamental contradiction between two of Vaclav Smil's innovations to save humanity. He calls for more efficient photosynthesis, while also suggesting the need for a planetary sunshade to control global warming.

However, such geoengineering wouldn't only cool Earth, but also reduce the efficiency of photosynthesis at the global level. We are already destroying much of the photosynthetic capacity of the planet through deforestation, changes in land use and impacts on ocean phytoplankton.

A tipping point where the energy captured by photosynthesis is no longer sufficient to support all life may be closer than we think.