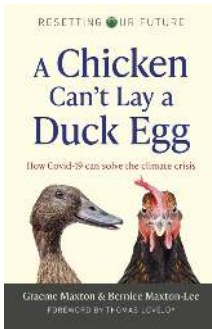


A Chicken can't lay a duck egg

Fact Sheet



What's Happening?

The average temperature of the planet is rising, and the pace is accelerating. This is not natural.

- The warming is mostly down to the way humans produce **energy** and **food**.
- Average global surface temperatures are now 1.2°C higher than in 1800, which is higher than at any time in the last 3 million years.

Impact:

- Mountains are crumbling as the ice that holds them together melts.
- Glaciers are disappearing and forests are dying.
- Storms are becoming more frequent.
- The number and extent of wildfires is rising.
- Droughts are becoming more prolonged.
- Some crop yields are declining.
- Rivers and lakes are drying out from evaporation and too little rain.
- The permafrost in Canada and Siberia is melting, releasing more greenhouse gases.
- As the polar ices melt, less heat is reflected into space, increasing the pace of global warming.

What's the science?

- The most important GHG is **Carbon Dioxide (CO₂)**.
- Before the industrial revolution the concentration of CO₂ in the atmosphere was 280 ppm (**parts per million**).
- It is now 50% higher, at 416 ppm (2020), and growing by 3 ppm a year, exponentially.
- The **tipping point** that societies have to avoid, when a chain-reaction starts, is **450 ppm**.
- That is in 15 years (as at 2020).
- The last time it was at that level was 45 million years ago.

If this happens:

- The warming will be **impossible to control**
- The great forests around the world will gradually die, releasing GHG gases, and the ice at the poles will melt much faster.
- Glaciers will disappear and coral reefs will die.
- By the middle of this century the average temperature will have reached its highest level in 10 million years. Many parts of the planet will become uninhabitable after 2050.
- Most of the planet will become uninhabitable long-term.
- This is also what will happen if all of the conditions of the 2015 Paris Climate Accord are met.

Acting responsibly as individuals is not enough:

- Even if hundreds of millions of people chose to live 100% sustainably tomorrow, it would not be enough to stop this chain-reaction from starting.
- If you live in the rich world and you cut your personal contribution to the atmospheric pollution each year to zero, starting tomorrow, then over the next decade your personal impact will be to delay the chain-reaction by just a fifth of a second.
- If everyone in America – all 330m people – stopped generating any GHGs it would delay the disaster by two years.
- If everyone in America – all 500m people – stopped generating any GHGs it would delay the disaster by 18 months.
- Action on climate change must include North America, Europe, Australia, Japan, India, China, and Russia. **Almost everyone** must cut GHG emissions by at least **7% a year**.
- That means 20% fewer cars **within three years**, 20% fewer planes, 20% fewer coal fire powered stations and 20% fewer ships.
- In the following three years after that, another 20% reduction.
- The longer societies take to begin, the steeper the cuts have to be.
- GHG emissions must be at least **60% lower in 2030 compared to 2020**.
- By **2040** they need to be **zero**.
- Societies need to transform the way they grow food, and stop all deforestation.
- They also need to build thousands of **carbon capture plants** to bring the CO₂ concentration in the atmosphere back down to safe levels.
- If all this is done, there is a 50:50 chance of avoiding that chain-reaction.
- Emissions **cannot be offset** in some way, by planting trees for example, because that takes too long to have any effect.

Almost everyone on Earth needs to urgently change the way they live, whether they want to or not.