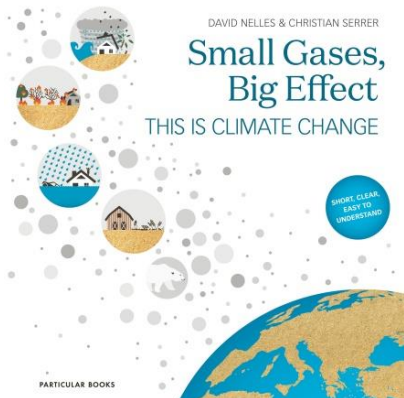


Literacy Lowdown

To advance your wider reading



A Level students should:

- undertake wider reading.
- use factual texts and discursive / creative material.

Summary

Hans Joachim Schellnhuber, founding director of the Potsdam Institute for Climate Impact Research, neatly summarises the book: 'written by two young people, [it] manages to summarise a wealth of complex scientific findings — the knowledge that we urgently need to shape our future.'

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Specification Links

AQA 3.1.1.4 Water, carbon, climate, and life on Earth *The role of feedbacks within and between cycles and their link to climate change and implications for life on Earth.* Edexcel Topic 6: The Carbon Cycle and Energy Security 6.3 *A balanced carbon cycle is important in sustaining other earth systems but is increasingly altered by human activities.* OCR Topic 3.1 – Climate Change 2.a. Humans have influenced the climate system, leading to a new epoch, the Anthropocene. Eduqas 3.2.6 The Arctic tundra biome *Impacts of climate change on the Arctic tundra biome.*

Key Quotes

Man-made greenhouse gas emissions always arise from decisions we make: it is not the car that is responsible for emissions, but rather the person who choose to drive it instead of taking public transport or cycling. p122 What Next?

If the Atlantic part of the 'global conveyor belt' came to a complete standstill, the air temperature in the northern hemisphere would drop on average by 1-2°C, and the temperature over the northern North Atlantic would decrease by as much as 8°C. p16 The Earth's Climate

In the past ten years, humans have released 39 gigatonnes (39 billion tonnes) of CO₂ each year. About 28% of it is captured by terrestrial vegetation and soils, and about 22% is absorbed by the oceans, but the rest (44%) remains in the atmosphere. p38 Possible Causes of Climate Change

Between 2008 and 2016, weather events — especially storms and floods — drove an average of 21.7m people to migrate within their own country each year. p154 Humans

Since the first UN Climate Change Conference in Berlin in 1995, global greenhouse gas emissions have increased by 50% and remain locked at record levels today. If we continue to emit large quantities of greenhouse gases, there could be further warming of up to 5°C by the end of the century. p120 Conclusion

Preserved within the permafrost soil are thousands of years of plant remains and animals. If permafrost thaws are exposed to microbial decomposition processes (that convert the stored carbon)...both gases can then seep out into the atmosphere. p63 The Cryosphere