ENVIRONMENTAL IMPACT OF AIR TRAVEL (some sources of further information)

Climate Change and Aviation – Issues, Challenges and Solutions
Ed Stefan Gossling and Paul Upham (2009). Available from Google Books and has been uploaded at: https://books.google.co.nz/books?id=LIvEZkURpcMC&lpg=PR11&ots=VFhTKL5oG-&dq=aviation%20and%20climate%20change&lr&pg=PR10#v=onepage&q=aviation%20and%20climate%20change&f=false
and
Climate change and flying: what share of global CO2 emissions come from aviation?
Hannah Ritchie, 2020 https://ourworldindata.org/co2-emissions-from-aviation

More than Carbon emissions: in addition to carbon emissions, aircraft engines emit other pollutants like nitrous oxides and sulphur dioxide as well as particulates such as soot when fuel is burnt. These all contribute to what are known as the non-CO2 climate impacts. The consequence is a net warming effect on the climate that is bigger than that of CO2. https://www.euronews.com/green/2022/05/04/co2-emissions-just-the-tip-of-the-iceberg-for-the-climate-cost-of-air-travel

Contrails: https://acp.copernicus.org/articles/19/8163/2019/

Possible cloud formation: https://agupubs.onlinelibrary.wiley.com/doi/10.1002/2014JD021914

Door-to-door emissions
How air travellers can cut their door-to-door emissions right now: https://theconversation.com/how-air-travellers-can-cut-their-door-to-door-emissions-right-now-by-as-much-as-13-on-the-sydney-melbourne-route-211099

Environmental impacts of airports
Airports have significant local environmental impacts including noise, air emissions, energy and water availability, waste and waste water management, ecosystems and land use planning: (https://greencleanguide.com/airport-environmental-impacts/) as well as construction and operations: (https://iopscience.iop.org/article/10.1088/1748-9326/abb42a)

Opinion and Commentary
"If left unchecked, emissions from polluting industries like flying threaten to crash the climate," said Alethea Warrington, a campaigns manager at *Possible*.
and
Leo Murray, a director at *Possible*, said "Air travel is a uniquely damaging behaviour, resulting in more emissions per hour than any other activity, bar starting forest fires."
Both quotes from: https://www.theguardian.com/world/2021/mar/31/elite-minority-frequent-flyers-aviation-climate-damage-flights-environmental

If aviation were a country, it would be the world's sixth-biggest emitter, falling after China, the US, India, Russia, and Japan: https://news.mongabay.com/2022/04/how-much-does-air-travel-warm-the-planet-new-study-gives-a-figure/

Comparing life-cycle impact of air and car travel: https://www.esgthereport.com/what-are-the-environmental-impacts-of-flying/#what-is-climate-action-amp-the-substantial-development-goal-13

CO2-emissions per passenger per distance, flying is second to none: https://www.theworldcounts.com/challenges/global-warming/global-co2-emissions