

Here we are in a very surreal situation, discussing the expansion of an airport when every evening's news brings us more examples of extreme weather around the globe which are increasingly attributed to climate change. How is this even 'a thing', has economics and 'growth' finally trumped common sense?

The applicant is nothing if not optimistic, both from the point of view of how they intend to limit CO2 emissions and our credibility.

A couple of standout examples of this, from the applicant's submission:

Volume 5 Environmental Statement and Related Documents

5.01 Chapter 12: Greenhouse Gases

12.1.14

The Jet Zero Strategy considers measures such as the national mandate to introduce Sustainable Aviation Fuels (SAF) into aviation fuel supply, and the introduction of next generation aircraft which are currently not available but in development. Initiatives and programmes in these areas are outside the control of the Applicant or scope of the application for development consent. However, as the Jet Zero Strategy demonstrates, they represent committed targets in government policy and legislation and can be relied upon as such.

12.1.18

Modelling of aviation emissions for the Proposed Development has been undertaken to reflect the Jet Zero Strategy High Ambition Scenario which takes into consideration an increased uptake of SAFs, aircraft fuel efficiencies, demand management through carbon pricing and the uptake of zero emissions electric and hydrogen aircraft. Further detail is provided in Section 012.5.53.

In short, we don't need to worry about the extra greenhouse gas emissions from the expansion of Luton Airport because Sustainable Fuels which are not yet available, aircraft using new technology and fuels which don't exist and CO2 pricing, so riddled with corruption and loop holes you could fly a 747 through it, will mitigate any negative climate change impacts. Much is also made of the UK's Emissions Trading Scheme (ETS) when such scheme, worldwide are riddled with false accounting and 'magical' thinking.

In short their Environmental Statement is a master work in dense verbal gymnastics and obfuscation, seeking to hide the inescapable fact that Jet aircraft consume fossil fuels in huge quantities and will continue to do so for the foreseeable future. Only fossil fuels have the energy density necessary to get a fully loaded airliner into the air and keep it there. All talk of hydrogen fuelled and electric airliners is (pun intended) pie in the sky. Even the most viable of the available technologies, hydrogen, will require years of development and testing before being certified, time we don't have given the nature of the climate emergency. Yes, I believe electric planes have flown, but they're in the experimental light aircraft category and, again, the energy density of even cutting edge battery technology puts scheduled airliners powered by batteries firmly into the realm of science fiction.

Yes, jet engines can be made more efficient, but they're already approaching their development peak and diminishing returns are starting to take effect, 60-70 years of development driven by the dog eat dog world of commercial aviation have seen to that and yes, Sustainable Aviation Fuels/Carbon Neutral fuels may have part to play in the future - though questions have to be asked about the CO2/environmental impacts and social impacts of 'growing' plants, algae etc. for such fuels will be.

In any case, the risk remains, that any small cuts in CO2 emissions will be totally over-ridden by increasing passenger numbers from proposed developments such as this.

Furthermore, Carbon neutral fuels do not address the problems of nitrogen oxides or particulate emissions. Air pollution from planes (ozone and fine particulate matter or soot) is responsible for an estimated 10% of global warming each year.

Facts:

Flying accounts of 3.5% global CO<sub>2</sub> emissions, if we also take non-CO<sub>2</sub> impacts Aviation contributes an estimated 2.4% of global annual CO<sub>2</sub> emissions, most of it from commercial travel, a figure which may not seem high until it is noted that this is more than most countries emit." If aviation were a country, it would be the world's sixth-biggest emitter, falling after China, the US, India, Russia, and Japan.

Unlike the most common greenhouse gases – carbon dioxide, methane or nitrous oxide – non-CO<sub>2</sub> forcings from aviation are not included in the Paris Agreement. This means they can be easily overlooked.

Aviation emissions are attributed to countries. CO<sub>2</sub> emissions from domestic flights are counted in a country's emission accounts. International flights are not – instead they are counted as their own category: 'bunker fuels'. The fact that they don't count towards the emissions of any country means there are few incentives for countries to reduce them.

Aeroplanes emit around 100 times more CO<sub>2</sub> per hour than a shared bus or train ride (a figure which perhaps exposes the true lunacy of flying frequently being cheaper within the UK than train travel), and the emissions of global aviation are around 1 billion tons of CO<sub>2</sub> per year — more than the emissions of most countries, including Germany.

A recent study published in the journal Environmental Research Letters calculated that aviation contributes around 4% to human-induced global warming and is projected to cause about 0.1° Celsius (0.2° Fahrenheit) of warming by 2050 if aviation continues growing at pre-pandemic rates.

In 2018, there were 4.3 billion passenger journeys recorded. The COVID-19 pandemic halted global travel and reduced aviation by 45% in 2020, but CO<sub>2</sub> emissions persist for hundreds of years, so all emissions from all past flights are still at play. Recent disruptions may have slowed warming by about five years, but they're not all that significant to aviation's overall climate impacts.

Regarding talk about poorer people suffering from not being able to fly if we charge for full cost of damage flying does:

If we look back to the pre-pandemic days of 2018, when luggage allowance was the only barrier to whizzing over to Barcelona for tapas for £50, we might be forgiven for thinking that everyone was at it. But, in reality, only 5 to 11 per cent of the world's population flew, yes flights maybe cheap, but the associated costs of a foreign holiday hotels etc., even the costs of a passport, put flying out of the reach of a surprisingly large proportion of the UK's population, never mind those of poorer countries.

In fact, a staggering 1 per cent of frequent fliers were responsible for half of all carbon emissions from aviation. So, while aviation's global share of carbon emissions may be relatively small; it's benefiting a tiny proportion of the worldwide

population. The predicted growth also rings alarm bells: the International Civil Aviation Organization forecasts that emissions from flying could increase by as much as 700 per cent by 2050 (mainly due to a growing middle class in Asia). If these predictions are realised, flying will be responsible for a global surge in carbon emissions.