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The Case for Not Flying

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Although aviation accounts for 2.8 per cent of global CO_2 emissions, its harmful impact rarely rises on the climate action agenda. In a globalised economy with businesses and lifestyles built around air travel, flying can be a hard habit to shake. To Fabrizio Menardo, individuals must make behavioural changes and policymakers must address the socio-economic challenges in the sector to bring travel in line with climate goals.

In 2015, under the famed Paris Agreement, almost every country on Earth pledged to limit the global temperature rise to well below 2 degrees Celsius compared to pre-industrial levels and "pursue efforts" to keep warming to 1.5 degrees Celsius. The latest report of the Intergovernmental Panel on Climate Change (IPCC) shows that greenhouse gas emissions from human activities have already caused around 1.1 degrees of warming, leading to an increase in extreme weather and climate events such as heatwaves, heavy precipitation, and droughts. Many of these impacts will last for centuries, and their magnitude will grow in line with cumulative future emissions. The IPCC estimates that, in order to achieve a 67 per cent probability of staying below 1.5 degrees Celsius, our cumulative CO_2 emissions from the beginning of 2020 must remain below 400 billion tonnes. Current annual CO_2 emissions stand at around 35 billion tonnes.

The climate impact of air travel

Before the Covid-19 pandemic, aviation was responsible for more than one billion tonnes of CO_2 emissions every year, representing around 2.8 per cent of global emissions. This proportion is somewhat larger in many high-income countries. Aviation is one of the primary drivers of the extreme differences in personal carbon footprints across the global population. It is believed that around 80 per cent of the world's almost 8 billion inhabitants have never flown. At the other end of the spectrum, a study published in 2020 suggests that the most frequent flyers, around 1 per cent of the global population, are likely responsible for more than 50 per cent of the emissions generated by commercial passenger aviation. The Covid-19 pandemic caused a drastic decrease in air travel, with around 55 per cent fewer air passengers in 2020-2021 compared to 2019. Nevertheless, the aviation industry expects the number of passengers to return to pre-pandemic levels within a few years, and Covid-related disruptions will likely have a minimal effect on the long-term climate impact of aviation.

While aviation-related emissions are currently low relative to other sectors, it is widely accepted that greenhouse gas and other emissions that contribute to global warming – such as contrails, which likely account for a significant percentage of aviation's climate

impact – are hard to avoid in this sector. Furthermore, these emissions are expected to grow in the next decades in line with increasing demand. As a result of these factors, in addition to the limited size of the remaining carbon budget, emissions from aviation will soon be too high. This will remain the case even if we successfully decarbonise the rest of the economy. As stated by the UN Environment Programme's Emissions Gap Report 2020: "Without further mitigation action, combined international emissions [of aviation and shipping] will consume around 60 to 220 per cent of the available global CO_2 budget by 2050."

Launched in 2020, the UK government's Jet Zero initiative illustrates the challenges involved in achieving carbon neutrality in aviation. The strategy prescribes solutions including rapid and unprecedented improvements in aircraft efficiency and sustainable fuel production, together with the large-scale deployment of negative emissions technologies (NETs). Under the most optimistic scenario analysed in Jet Zero, the UK will need to remove 9 million tonnes of CO_2 per year from the atmosphere by 2050 – that is 2250 times the capacity of the largest existing CO_2 removal plant. Under more realistic scenarios, this figure is up to four times larger.

Contrary to claims made by the aviation industry and governments, these figures demonstrate that achieving carbon neutrality without reducing flight volumes will be virtually impossible in the near future. The options for aviation should of course be reassessed as new technologies become available. At present, however, it is clear that mass flying is simply incompatible with a stabilised climate. There nevertheless appears to be a consensus in the mainstream media, and in public debate in general, that reducing air travel is simply unthinkable.

Economic challenges to reducing aviation

A key reason behind the belief that air transport is indispensable is its economic importance. Aviation is entrenched in the global economy, providing services and livelihoods to millions of people across the world. In the event of a significant reduction in air travel, many of the 90 million jobs worldwide sustained by the sector would be lost. International economic activities would also be severely disrupted: around 35 per cent of world trade in value is transported by air freight, and many international businesses rely on frequent flying to maintain contact with customers and suppliers.

A successful transition to a world with less air travel must take full account of these issues in all their complexity. Aviation in its present form is no different from the other polluting sectors such as fossil fuel extraction and processing that will need to shrink and eventually disappear if we want to achieve carbon neutrality. We must safeguard our environment and the health and livelihoods of people and societies, not the existence of industries that are fundamentally unsustainable.

The pandemic clearly demonstrated that profound changes to the way our businesses function, practically unthinkable pre-Covid-19, can indeed be made. In 2020 and 2021 for example, business travel almost disappeared, and companies were obliged to adapt their operating models. The pandemic also contributed to shifting the paradigm on what governments can and should do to influence the economy. Interventions including the introduction of furlough schemes to reduce redundancies, increased government spending, and the issuing of common EU debt were unthinkable before the pandemic. Without them, however, the public health and economic crises would have been much worse. To protect people from the coronavirus, governments restricted and even halted airline operations. There is no reason similar steps should not be taken to protect them from climate change.

A just economic transition towards a world with less air travel can be achieved through measures like public investments, market-based incentives, regulations, and social protection policies – a number of which will be discussed in the final section of this article. However, the successful development and implementation of these policies requires years, if not decades, of steady political effort, as well as close coordination between governments. For this, strong popular backing is essential. Unfortunately, this level of public support for restrictions on air travel is currently lacking.

Cultural resistance to limiting air travel

There are indications that environmental considerations caused passenger numbers to fall in Germany and Sweden in 2019, and a small no-fly movement is growing, backed by a part of the scientific community. Globally, however, the number of passengers increased year on year prior to Covid-19, when it dropped significantly. It is predicted that demand will return to pre-pandemic levels by 2025 and will continue growing into the future.

While economic factors represent a structural obstacle to a reduction in air travel, the majority of passenger flights are taken for leisure as opposed to work purposes. Accompanied, as it was, by a massive shift to virtual meetings and drastic cuts to business travel, the Covid-19 pandemic increased the importance of leisure flying within the aviation sector. This could continue into the long term. As such, there is a compelling case for individual responsibility.

Frequent flying has become a marker of social status and an aspect of personal identity.

A poll carried out in 2020 showed that 82 per cent of Londoners were concerned about climate change and 87 per cent were motivated to help prevent it, yet only 13 per cent had given up flying for environmental reasons. These findings are supported by the results of pre-Covid global polls: global warming is an emergency for 64 per cent of the world population, but only 14 per cent would choose an alternative form of transport even if this were more expensive or less convenient than flying. One of the principal factors behind this is the drastic underestimation of the climate impact of air travel in a classic manifestation of low “carbon numeracy”.

Although awareness is important, simply informing people about the climate harms of flying

is often not sufficient to bring about a change in travel choices. Knowledge, whether new or latent, must first be internalised. Successful internalisation is one of the most common reasons for stopping or reducing air travel out of environmental concerns. Furthermore, our decisions are strongly influenced by social norms and expectations. We often fly because it is expected of us; we fear endangering our careers or friendships if we refuse to do so. In order to reduce the cognitive dissonance this may create, we downplay the impact of our actions and cite the perceived lack of alternatives, convenience, the belief that reducing emissions is the responsibility of others (corporations, future technologies, etc.), and engagement in compensatory actions such as carbon offsets or other virtuous choices.

Frequent flying has also become a marker of social status and an aspect of personal identity, particularly among journalists, scientists, businesspeople, celebrities, and policymakers. People belonging to these categories represent a small minority of the population, but one that wields disproportionate influence on public opinion and policy.

Finally, our attitudes towards flying depend on our geographic and socio-demographic contexts. There is heterogeneity both within communities – where different demographic groups justify their travel habits in different ways and travel for distinct reasons – and between communities. In isolated locations such as Iceland, for example, the lack of alternative transport is particularly important. Incentives, policies, and campaigns must therefore be adapted to appeal to various different community and traveller types.

What aviation can teach us about the ecological transition

As a result of the obvious inadequacy of technofixes, aviation highlights the challenges inherent to net zero better than most other sectors, allowing us a better understanding of the efforts required for a successful wider transformation.

As we have seen it will be virtually impossible to achieve carbon neutrality within the coming decades without a reduction in both airline operations and the activities of businesses dependent on the aviation sector. This is essentially non-contentious for aviation despite the “head in the sand” approach common to many governments and seen in public discourse. However, it is also true for economic activities in general. Empirical evidence indicates that even the least stringent target set out in the Paris Agreement is unlikely to be met in the context of the continued growth of the global economy, a concept with important consequences that has yet to find its way into our collective consciousness.

In terms of cultural barriers, we have seen that most people underestimate and/or rationalise the impact of their air travel. As a result, they are not ready to change their behaviour. This point is sometimes lost in the climate debate. There is no doubt that corporations and governments must be made accountable, and that systemic change is needed. But the net-zero transformation also demands significant changes in personal behaviour, at least in high-income countries.

The third challenge is related to social justice and inequality. As outlined above, air travel is emblematic of global carbon and socio-economic inequalities. The amount of carbon generated by a single intercontinental flight per passenger is larger than the mean annual emissions of citizens in many of the world’s poorest countries, and the impact of private jets or space tourism is even more obscene. Any serious attempt to solve the climate and

ecological crises must acknowledge and tackle these social justice issues, otherwise it would be rightly seen as unfair and hypocritical.

Aviation in its present form is no different from the other polluting sectors such as fossil fuel extraction and processing that will need to shrink and eventually disappear if we want to achieve carbon neutrality.

Strategies to reduce air travel

It is essential that the challenges outlined above be fully taken into consideration by activists and policymakers working towards a reduction in air travel. Policy proposals should aim to bring about changes that enjoy widespread popularity; public campaigns can work to boost support and increase awareness of and buy-in for more far-reaching measures. At present, strategies to reduce aircraft emissions tend towards technological solutions supported by market-based mechanisms such as carbon taxes or emissions trading schemes.

However, a range of policy responses aimed at reducing flight volumes have also been proposed. Of these, the most high-profile has been the proposal to ban short-haul flights. Such a ban was recently adopted in France for domestic routes that can be travelled by train, and could be implemented immediately in other countries where the issue is currently under discussion, and for short international routes.

A second proposed measure, called for by both activists and the aviation industry, is the overhaul of EU airport slot usage regulations. At present, companies are flying empty planes during periods of low demand in order to avoid losing their right to take-off and landing slots. As this is not the only reason to fly aircraft with few passengers, additional regulations to increase the occupancy rates of aircraft should also be considered.

A third possible measure is the repeal of tax breaks for aviation fuel as proposed by the EU for its domestic flights; this could be extended to other countries and to international routes. Finally, a ban on frequent flyer programmes has also been put forward. These programmes incentivise harmful behaviour that should be discouraged. Such a ban could be coupled with progressive frequent flying levies.

With its supply-side reductions in flight volumes and demand-side economic disincentives to frequent flying in particular, this relatively mild set of policies would contribute to fixing aviation’s most serious emissions-related transgressions. The advantage of these policies is that they would only affect a relatively small number of people and would therefore be more likely to garner sufficient support. For them to be effective, coordination between different governments is essential. Failure to do so would provide an incentive for passengers and airlines to move to neighbouring countries with less stringent regulations and lower costs, leading to carbon leakage. These policies should be implemented in tandem with other measures such as retraining and financial support for workers in the

aviation industry and the financing of an affordable, convenient, and sustainable ground transport system. Moreover, communities relying on air tourism should be helped to adapt to different travel patterns, and to diversify their economies and increase their resilience and sustainability.

Increasing the cost of (frequent) flying would contribute to suppressing demand in general, but is unlikely to change the habits of the very wealthy. Billionaires have a personal carbon footprint hundreds or even thousands of times larger than the average, mainly due to their use of private jets, helicopters, and superyachts. A ban or a punitively high progressive tax on private jets would boost the credibility of other measures. However, without international coordination, these policies would be mostly symbolic as aircraft could be relocated and serviced in other countries.

Economic disincentives and reduced flight volumes may cause people to think twice about air travel, but they will not change general attitudes. For this, awareness-raising campaigns on the real impact of flying are needed that challenge the social norms surrounding it. The environmental footprint of climate researchers and environmental advocates is known to affect their credibility; an important focus of these campaigns should therefore be the personal example set by activists, policymakers, and scientists who reject the normality of flying.

Climate advocates can present an alternative, low-carbon vision of a fulfilling life that deconstructs the synonymity of travelling and flying and underlines that enriching experiences are gained by travelling, not flying per se. This type of message must be carefully tuned to avoid elitism. We are not striving for a world in which only high earners have the resources and time to travel; our vision is one in which everyone has the opportunity to experience distant places and cultures and can do so sustainably.

The list of policies needed to bring such a vision into being is long and also encompasses measures not directly related to travel. Airline advertisements could be banned or strongly limited. Reductions in working time and a right to longer holidays or sabbatical periods could be introduced. Such measures, together with robust social welfare systems, would make it possible for people to travel for longer periods without fearing economic hardship or dented job prospects on their return. A travel allowance, to be spent on low-impact transport and accommodation, could be provided to young people to open up the experience of travel to all during their formative years.

The difficulties inherent in implementing such ideas should not be brushed aside, and a good dose of realism will be required when proposing practical policy changes, particularly given the current geopolitical and economic context. Nevertheless, these ideas belong to a broader vision of a sustainable and fair life for all and deserve to find their place within both the collective imaginary and the range of possible policy options.

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