Sound solutions to aircraft noise

When aircraft noise disturbs, it can really disturb. The chart (right) shows that only wind turbine noise annoys so many people at lower levels. Of course not everybody is disturbed by the noise. The statistics show that even at high noise volumes, a lot of people are not worried by the noise. This seems particularly to be the case when a person is born and brought under the flight path. I've spoken to people who have lived within couple of miles from Heathrow all their lives who tell me they are barely aware of the planes flying overhead.

If you are driven to despair by the noise, you can become very angry with the airport. Sometimes with good reason. Airports have often treated overflown communities in a very dismissive way. The exceptions stand out: somewhere like Vienna. In recent years, Heathrow, too, has pioneered many community initiatives. That anger can lead to fury with the aviation industry. And to become 'anti-aviation'. That is utterly understandable. The despair of living with the noise can be overwhelming.

But the sheer anger of the disurbed can blind us to the good aviation can and does do good.

Aircraft are the work-horses of the globalised economy which has over the last few decades facilitated the trade which has lifted millions of people out of poverty.

I know Bjorn Lomborg, the Danish author of *The Skeptical Environmentalist*, is a controversial character but he is spot on when he wrote this last year:

"The most powerful thing governments could do to transform lives would cost next to nothing at all: embrace freer trade. During the past 25 years, China lifted 680 million people out of poverty through trade, and there are similar stories from Indonesia, Chile and others. Genuine, global free trade would have benefits that would reach every single country. Far more than any aid dished out by donor countries, lowering trade barriers is the most powerful way to reduce extreme poverty. A completed global Doha trade deal would make the world $US11 trillion richer each and every year by 2030 according to research considered by the Nobel laureates"(1).

Flying has also opened up travel to this generation in a way that previous generations, unless they were wealthy, could only dream about.

This is not to say that aviation shouldn't pay more tax. It should. It is undertaxed. It pays no tax on airline fuel and there is no VAT on tickets. I favour a Frequent Flyers Levy.

And it makes sense to encourage rail to be convenient, reliable and affordable so it becomes the mode of choice for shorter journeys. It is quieter and cleaner.

But we mustn't kill off aviation. The focus should be on dealing with its downsides. I actually believe that dealing with its emissions – and CO_2 emissions from aircraft are significant – will prove easier than sorting out the noise it causes. Unless and until we have cleaner fuels, it is perfectly possible to require other sectors of the economy to decarbonise further in order to allow some growth in aviation – remember less than 10% of the world's population has ever flown and, as the emerging economies become richer, their peoples will fly much more than they do today.

So, how to we deal with noise?

1.Research and development into quieter aircraft. Aircraft are a lot less noisy than they were 40 years ago. But in the coming years an annual reduction of only 0.1% is expected in noise from aircaft coming on-stream. The technology is not on the horizon for planes to get significantly quieter anytime soon. Meaningful resources need to be put into research and development in quieter planes by both the industry and governments. And this R&D should not take second place to the development of planes which emit less CO_2.

2. Build new airports well away from centres of population. It is interesting there are few noise complaints about the main airports in the Scandinavian countries. They are located well outside the towns and cities. It is not always possible to relocate existing airports but there are lessons here for the emerging economies as they build new airports. (Wherever an airport is built people who lose their homes or land should be generously compensated).

3. Encourage quieter alternatives to air travel where feasible. Aviation does long-distance journeys well but, if rail became more viable for shorter journeys, there opens up the possibility of managing or even reducing flight numbers over communities which is what they want above all else.

4. Share the noise around. Except for areas under the final approach to a runway, it is perfectly possible to use new technology to create multiple flight paths and to rotate them so as to give residents a break from the noise each day. In my experience communities are much less interested in how many runways an airport has than in how many planes fly over their homes. These days it is the volume of aircraft passing overhead rather than the noise of each plane that is the biggest cause of disturbance. This sort of respite should also be a no-brainer for the industry. It allows it to expand while limiting flight numbers over most communities.

5. Limit night flights. The European Union published a report which showed that, world-wide, most night flights were operated for the convenience of the airlines, rather than because they were essential (2). Night flying should become the exception.

6. Provide generous compensation and mitigation. Communities under flight paths should expect money to pay for effective sound insulation measures. People who lose their homes or who see them devalued in price should be properly compensated.

7. Ensure best operational procedures are followed. The steepness of the descent or ascent is important for communities as are measures such as when aircraft coming into land lower their landing gear.

These measures would quite noticeably lower the impact of noise.

John Stewart

References:

(1). https://www.lomborg.com/news/how-to-spend-162bn-to-fix-climate-along-with-everything-else

(2). Assessing the Economic Cost of Night Flight Restrictions, European Commission 2005