

Oxford Climate Policy Blog

Initiating debates on international climate policy

Rethinking air travel in a globally connected world: Beyond Flying?

Benito Müller

It must be rare to be referred to as *one of the most destructive voices in modern climate dialogues*. How did I obtain this epithet?

On 16 May this year, Rod Janssen, publisher of the weekly [Energy in Demand](#) (EiD) newsletter, requested his readers to *take a few moments to rethink air travel. Let us know what you are doing to make your mobility more sustainable!* I followed the request and sent him the following Comment:



Air travel/transport is in danger of becoming to be regarded as 'intrinsically evil' which I personally think is completely the wrong reaction to the problems it no doubt poses in its current form. I do not think abolishing air travel and replacing it with 19th century slow travel alternatives is a sustainable answer.

As I tried to argue over a decade ago ("Food Miles or Poverty Eradication? The moral duty to eat African strawberries at Christmas") Abolishing air transport would also have disproportionate negative impacts on those who rely on it to sell their agricultural produce to the globally more affluent.

What we need is not to abolish air travel/transport but to make it more sustainable, not just by offsetting, but by switching to renewable energy based planes and by supporting the poorest and most vulnerable globally in their efforts to build resilience against residual impacts, as proposed in the Corporate Air Passenger Solidarity initiative.

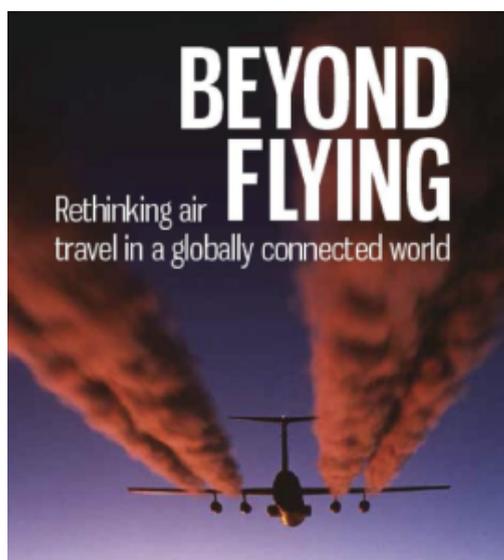


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In comes 'Leslie' (*nom de plume*) with this riposte: *Benito Müller seems one of the most destructive voices in modern climate dialogues: he is proposing with the CAPS initiative to keep on flying and pay for adaptation (not even loss and damage) rather than reducing emissions and pay the climate financing that developed countries has promised with the Paris Agreement, including adaptation finance. The argument of only financing adaptation is a short-circuit of climate action with the underlying assumption that we can just adapt to any climate change. [...]*

I have no idea how s/he arrived at the preposterous conclusion of me having ever advocated that "we can just adapt to any climate change". The point of CAPS is to redress the neglect of adaptation in the debate on air travel and climate change, not to supplant mitigation, which is obviously critical.

What we need is to make flying sustainable. That does not mean we have to abolish it altogether ('The only good plane is a grounded plane!'). What we need to do is eliminate not flying but its carbon emissions, while also supporting the most vulnerable in enhancing their resilience to the adverse impacts which have already been caused (by unsustainable air travel).



'Rethinking air travel' in Janssen's request refers to an *Ecologist* book review by Rose Bridger of "Beyond Flying: Rethinking air travel in a globally connected world".^[1] It begins with the observation that: *For today's tourists and travellers the elephant in the room is the jumbo jet which whisks us to our destinations – but pollutes the air, promotes destructive development, and isolates us from the real world.*

While fully acknowledging the point about pollution, I have my reservations about 'promoting destructive development', and I have to draw the line at the isolation from 'the real world', or, as a review heading goes: **"How air travel narrows the mind"**. According to Bridger, *the book celebrates the joys of substituting flight with surface travel, and also addresses the difficulties. People need the luxury of time to undertake intercontinental journeys by buses, trains and boats, which take days or weeks instead of the few hours for a flight. [...]* A theme touched on by all the travellers is *em-*

bracing the journey, engaging with the places they are passing though. Their psycho-geographical insights are a marked contrast with the experience of air travellers, who are, in one sense, broadening their horizons, yet are also extraordinarily blinkered, fixated solely on desired destinations while flying oblivious over everything in between.

Indeed, not everyone has the money, connections, or time to commandeer a racing yacht for an Atlantic crossing^[2] (and even if one has, it is doubtful how much more 'psycho-geographical insights' one would gain in such a crossing). Moreover, CAPS is about corporate travel, which is generally not about broadening travellers' horizons: Business travellers would prefer to be beamed to the meeting and straight back. Unfortunately this technology is **not yet quite as user-friendly as one would wish**, and while we have made great strides with Zooming across the world, there is no doubt in my mind that face-to-face meetings will remain critical in doing business. Fortunately, the solution is in the making: *United [Airlines] will purchase 15 of Boom's 'Overture' airliners, [...] with an option for 35 more aircraft. Slated to carry passengers in 2029, the net-zero carbon aircraft will fly on 100% sustainable aviation fuel (SAF).*[\[boomsupersonic.org\]](http://boomsupersonic.org)

Top: [The Guardian](#) 23 January 2015; Bottom: "UNITED GOES SUPERSONIC"

The trouble with SAFs is they are not without their own problems, particularly bio-fuels (see, for example, "[The Biofuel Controversy](#)"), which until recently was the only SAF type I knew of. On 7 December, I received a bulletin from [SWI](#)

swissinfo.org, the news and information service of the Swiss Broadcasting Corporation, introducing me to **How sustainable fuels created from thin air could solve the energy crisis:**

Perched on a roof in central Zurich, the white installation looks like a satellite dish from a James Bond film as it emerges from its casing and points to the skies. But it is not tracking secret communications. The unique device – a mini solar refinery – was built by scientists at the federal technology institute ETH Zurich to show that it is possible to produce carbon-neutral fuels from just sunlight and air.

ETH Mini Solar Syngas Refinery

I was frankly bowled over by the idea. To extract carbon from the air with solar power, like bio fuel but without (necessarily) competing with arable land: genius! Of course, it is not totally problem-free either, as acknowledged in the article: it is much too expensive. But this is not an insurmountable obstacle: Simonetta Sommaruga (Swiss Environment Minister), for example, has publicly supported the introduction of “a blending quota for synthetic fuels in aviation to help create a new market”, something which, according to a recent [Nature paper](#), could do the trick.^[3]

Large-scale solar syngas refineries of the type demonstrated at the ETH will require a large amount of territory to be deployed, and it would obviously not be sensible to use arable land for this. Fortunately, there are countries with large tracks of non-arable territory they could use to produce fuel for the world by extracting carbon from the air (as opposed to from the ground).

As to the future of CAPS, I have to admit, Leslie’s riposte did give me food for thought. Maybe a twinning of CAPS with an initiative that supports the scaling up of (truly) sustainable aviation fuels could be the way to promote sustainable aviation while avoiding Leslie’s misunderstanding?

Footnotes

[1] Chris Watson (ed.), Green Books (2014).

[2] “Climate activist Greta Thunberg made a double crossing of the Atlantic Ocean in 2019 to attend climate conferences in New York City and, until it was moved, Santiago, Chile. She sailed from Plymouth, UK, to New York, United States aboard the racing yacht *Malizia II*, returning from Hampton, Virginia, to Lisbon on the catamaran *La Vagabonde*.”[Wikipedia: “Voyage of Greta Thunberg”]

[3] Given their high initial investment cost, solar thermochemical fuels require policy support to see widespread deployment, leading to concomitant cost reductions initially through scaling effects and process optimization, and then through mass production of key components and learning-by-doing. Regulatory frameworks progress over time to match three phases: initial R&D and technology demonstration, market creation and system development, and market competitiveness.

... we propose an aviation sector support scheme that would create a near-term market for the first generation of commercial solar fuel plants. ... this would take the form of a jet fuel quota scheme, mandating aviation fuel retailers or airlines to provide proof that a certain proportion of their fuel comes from solar fuel sources. The initial costs of such a policy would be small enough to be politically practicable because the initial quota would be very low relative to overall jet fuel demand. ...

This would start solar fuels' journey down the learning curve, which is the main aim of the policy. Technological learning at the same pace as for [concentrated solar power] – approximately 60% generation cost reduction in 15 years – seems feasible for solar thermochemical fuels as well. Importantly, solar drop-in fuels can utilize existing storage, distribution, and utilization infrastructure and thus require no new technologies beyond the production chain.[Remo Schächli *et al.* 'Drop-in Fuels from Sunlight and Air' *Nature* 3 November 2021]

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[<http://blog.oxfordclimatepolicy.org/rethinking-air-travel-in-a-globally-connected-world-beyond-flying/>] by Benito Muller.

One thought on “Rethinking air travel in a globally connected world: Beyond Flying?”

Rod Janssen

19 January 2022 at 15:09

Thanks for your blog, Benito

We do need to rethink air travel. I think your position is totally valid and I certainly don't think of you as “one of the most destructive voices in modern climate dialogues.” While you have been active in adaptation policies and financing I cannot imagine you advocating that “we can just adapt to any climate change.” I have seen the work you have undertaken over many years and there is nothing in what you've done to substantiate that.

Energy in Demand is designed to get people to think carefully about energy demand and how we address climate change. There was a link to rethink air travel and the link was given to me by one of Europe's top energy efficiency experts. He flies occasionally and I am sure he uses offsets. You say that “what we need to do is make flying sustainable.” Absolutely and the sooner we can reduce air travel emissions, the better. I'm not convinced there is enough activity to mitigate emissions but we simply need to push harder.

At the same time, there is a need to minimise air travel to be a little less “careless.” Yes, people will take holidays abroad. Yes, people will fly for work. I am on the board of the European Council for an Energy Efficient Economy and we hopefully will have a summer study near Toulon this year. Yes, we have been trying to minimise air travel but that is impossible as you can imagine. We cannot expect people from Warsaw or Bucharest not to fly. Encouragingly, a large group from the Fraunhofer Institute is planning a chartered bus to attend the event and that is great.

I have another friend in Arizona who was a top economist at the US Environmental Protection Agency. I last saw him in January 2020 in Paris, and he said that this trip was going to be his last by plane except for emergencies (his daughter lives in Washington DC). That may be extreme, but we are hearing about people who are taking such positions.

I mention that Energy in Demand promotes the carbon-neutral energy transition. That energy transition is not easy and there is no single path. But it is that, a transition. Right now we are seeing commitments – and hopes – to reach net zero emissions. This has to be in all sectors, including air travel. It is a monumental challenge but one we have no choice but to make.

Please keep pushing. There will always be the “Leslie’s” in this world. While their intentions are good, much more pragmatism is needed. They get us thinking. They get us mad. They should never call you “one of the most destructive voices.” I think more people need to reflect on what you say. Keep it up. Energy in Demand will.

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