

False solutions for aviation

Airlines can no longer afford to say that they don't care about fast growing CO₂ emissions. Ignoring the other ways in which aircraft worsen global warming is still permitted. From 2012, however, their CO₂ emissions come under the European Emissions Trading Scheme (EU-ETS) and could even find their way into a new UN climate deal.

High and rising emissions are thus becoming more costly, both financially and politically. The only sensible answer would be to tackle the demand for aviation and to stop airport expansion immediately. That's the last thing airlines want to think about. Instead, they've been busy thinking of ways to 'fix the carbon accounts' while flying every more.

Greater 'efficiency', though much talked about, won't get them very far. At best, fuel efficiency can be improved by 1.5% per year, yet companies want to continue annual growth of 5% per year (interrupted only by the recession). Something more radical is needed – 'carbon neutral growth' as the industry call it. And this means two things: biofuels and carbon offsets.

Biofuels for planes

Biofuels are subsumed under 'alternative fuels', but the only other credible 'alternatives' to kerosene are fuel made from natural gas or coal. The process is so energy intensive that even if natural gas rather than coal is used, the carbon emission are still higher than those from kerosene. This leaves biofuels and there is a great incentive for using them: Under the EU Emissions Trading Scheme, biofuels used in aircraft are classed as 'carbon neutral', even if tropical forests and peatlands have been directly destroyed as a result. This is different from biofuels in road transport. There, some minimal, if flawed, 'standards' apply and biofuels can only be classed as having lower greenhouse gas emissions than fossil fuels (despite strong scientific evidence to the contrary), not as 'carbon neutral', and direct emissions from deforestation or fertiliser are all supposed to be accounted for. Not so for airlines – they won't have to concern themselves at all with where future biofuels will come from, they can reap the full reward under carbon trading (see: www.transportenvironment.org/Publications/prep_hand_out/lid/556) . Special treatment for aviation again.

Nonetheless, the aviation industry claims to 'care' about forests and food. They speak about biofuels made from algae, from saltwater plants or from oilseed crops hardly grown anywhere, such as camelina. Biofuels from algae or saltwater plants sound nice, the problem is – they don't exist. Algal biofuels have been 'in development' for over thirty years without any real breakthrough. There is no technical problems with making them – apart for the small problem of needing to put in more (fossil fuel) energy to produce such biofuels than is gained from burning them. Even one of the airlines leading the development of aviation biofuels, Lufthansa, admits that algae won't be an option for at least a decade. Yet they and others plan to mix biofuels with kerosene by 2012.

One favoured biofuel crop which is being planted on millions of hectares of land is jatropha. Dubbed a 'miracle plant' it's supposed to grow on poor soils with little water. Except that doesn't. It doesn't yield oil unless grown on fertile land and with irrigation and even then, it often fails. Small farmers in countries including Tanzania, Mozambique and India are being either evicted or coerced into growing jatropha bushes rather than food, causing ever more people to go hungry.

Biodiverse savannahs and forests are facing destruction for jatropha, too. Yet despite this rapid land conversion, commercial jatropha fuel remains elusive.

This leaves one realistic biofuel feedstock for aircraft – palm oil. Neste Oil are building the world's biggest biofuel refinery, a palm oil one in Singapore and state that they could easily convert it to produce palm oil jet fuel. There are no technical hurdles. Companies supplying Neste Oil's palm oil are responsible for ongoing rainforest destruction, land-grabbing and land-conflicts. This could soon be the cost of 'carbon neutral' aviation growth.

Carbon offsets:

The amounts of biofuels required to fuel a plane are so enormous that the industry needs something else – carbon offsets. Carbon offsets are at best a 'zero sum game' where by emissions savings in the global South are used to legitimise more fossil fuel burning in the North. In reality, however, the situation is far worse. The vast majority of offsets benefit polluting industries in the South, at the expense of people, environment and climate. 'Typical offsets' include:

- hydro-dams which displace people, destroy freshwater biodiversity, flood forests and farmland and emit vast quantities of methane;
- monoculture tree plantations, often at the expense of natural forests or grassland, which deplete and pollute soil and water and are often linked to land-grabbing and human rights abuses;
- biogas from pig manure, which means more subsidies for industrial livestock companies at a high cost to animals, climate (not least as a result of soya monocultures for animal feed) and human health – the pig 'factory' where swine flu is believed to have originated had just been proposed for a UN carbon offset project. Small farmers can't compete and yet again lose out.
- landfill gas capture which prevents the closure of toxic landfill sites that cause illness and even death amongst local people;
- methane capture from palm oil mills, yet more subsidies for companies which are destroying forests and displacing communities;
- wind turbines erected on farmers' land but which feed electricity to polluting factories, not to the community.
- capture of highly potent F-Gases from companies making fridges – the carbon offset subsidies are so high that companies make far more money by producing and then capturing and destroying those gases, rather than installing cheaper technology to stop producing them in the first place. Local people suffer the pollution caused by such factories.