



Commissioner Violeta Bulc
Commissioner for Transport
European Commission
B-1049 Brussels, Belgium

Brussels, 23 January 2017

Subject: Biofuels are not a way to decarbonise aviation

Dear Commissioner Bulc,

We write you to express concern about your recent statement in an interview with Politico that “Biofuels are the ‘best choice’ at this point to start to decarbonize the industry”. The undersigned organisations believe that relying on large-scale biofuel cultivation leads to bigger rather than lesser environmental damage. Europe’s aviation policy should focus on far more meaningful measures that will have an impact, including reducing demand.

The aviation industry continues to promote the idea that biofuels are the long term solution, but evidence to date brings all future production scenarios and sustainability issues seriously into doubt. **Disruptive alternative fuels** could offer lower scalability and sustainability obstacles than biofuels, but still need a considerable amount of research and development. While that work continues, policy must ensure that past mistakes on biofuels are not repeated in the aviation sector.

1 Most biofuels increase GHG emissions

Over the past ten years, we have accumulated scientific evidence that bioenergy results in high greenhouse gas emissions when both direct, and more importantly indirect land-use change, are taken into account. Use of certain biofuels can actually be **worse for the climate than the use of conventional kerosene**. If we are instituting a policy for climate reasons - promoting aviation biofuels to reduce the climate impact of the sector - we must be certain that the alternative is considerably better than burning kerosene.

2 Large-scale bioenergy cultivation is highly land intensive and a threat to people and the environment

Arable land is a limited resource. Land-based biofuels are therefore not truly ‘renewable’ since the land used is lost for other purposes, including food production, carbon sequestration, nature and to ensure the livelihoods of communities. Using land to produce bioenergy is highly inefficient. For instance, a hectare of bioenergy produces enough energy to propel one to two cars, whereas a hectare of solar panels produces enough energy for more than 300 electric vehicles. Consequently, powering the world’s aviation fully with biofuels in 2050 would, directly or indirectly, require more than 3.5 million km² of land¹ - more than the surface of India. This would carry a huge risk of displacing people, who in developing countries often hold no formal title to the land they depend on and of further destruction of nature and ecosystems. The use of land-based biofuels in transport should therefore be phased out.

Sustainable feedstocks available for production of non-land using biofuels, made of waste and residues, are limited and there are other sectors competing for their use. Therefore, some types

¹ Own calculations: international aviation will consume around 800 Mt of fuel in 2050. The NCV of kerosene is 44.1 TJ/kt. That equals 35.28 EJ = 843 Mtoe by 2050. 1Ha produces 100 GJ of biofuel.

of advanced biofuels **might play a role, but on a modest scale**. Moreover, biofuels do not help to address the considerable climate change-inducing effects of contrail formation or aviation induced cloudiness from airliners.

3 Sustainability is more than climate change

We must ensure that aviation biofuels result in fewer emissions than their fossil counterpart and effectively help the EU deliver on its climate change goals. This is not enough however. Environmental and social sustainability criteria are key. Some stakeholders might consider that social criteria are not fundamental to ensure [sustainability](#). We disagree. Biofuel policy for aviation fuels, should also respect human rights and the EU's commitments under the Sustainable Development Goals. We note that there have already been [cases](#) of biofuels for aviation inciting land use conflicts and food insecurity of local farmers. Stricter environmental criteria than those currently applied to biofuels should be [introduced](#) to stop biodiversity loss and protect soil and water resources. The system must assure the public that aviation biofuels are not having negative impacts, and as such transparency is essential.

4 Reliance on biofuels takes attention away from more promising solutions

Focussing on promises about biofuels for aviation, which cannot provide needed volumes sustainably, steers policy away from pursuing measures that are needed now to reduce emissions in the aviation sector. These measures include:

- **Abolition of subsidies** – whether international aviation's fuel tax and VAT free status, abolition of wasteful state aid to airports and airlines or production subsidies to manufacturers. Alternative transport modes, such as high-speed trains, cannot compete with tax-free aviation. For instance, according to DG MOVE [data](#), the second most common flight within the EU is the Madrid-Barcelona connection, a trip that can be done by train in 2.5 hours.
- Genuine pressure on manufacturers to produce - and airlines to use - much **more fuel efficient vehicles**. Manufacturers subverted any chance of ICAO's CO2 standard having an environmental impact. It may well in fact now serve as a perverse disincentive to producing greener aircraft as producers will stick to business as usual.
- Resolute action to **reform Europe's outdated air traffic control system** to produce a more efficient use of airspace. This is completely within the remit of the Commission and member states.
- Strengthening and extending the scope of aviation in a [reformed EU ETS](#) has shown to be [effective in reducing emissions](#), despite being faulty in its current form. The 'zero emission factor' for kerosene made from biomass under the ETS must be abolished, and all the climate impacts from planes should be included in the ETS.
- Ultimately, to avoid catastrophic climate change, it will without doubt be necessary to reduce dependence on aviation. Industry aspirations to continue business as usual growth without increasing the net climate effect are a dangerous illusion.

For all the reasons stated above, we call on you to reconsider your position regarding the promotion of aviation biofuels and instead promote measures that can truly reduce greenhouse gas emissions in the aviation sector in a sustainable way.

Yours sincerely,

Signatory organizations

Birdlife Europe, Fern, Friends of the Earth Europe, Oxfam International, Transport & Environment