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**Working Group on Environment**

**Biofuels Under Scrutiny from  
Regulators: Europe's Short-term  
Decarbonization**

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In order to reach climate goals, all sectors must reduce emissions. This is particularly difficult for the aviation sector, given the limitation of options for decarbonizing air travel, regarding freight and passenger traffic. Aviation is steadily growing worldwide as well as in the European Union (EU). Meanwhile, the EU Emission Trading System (ETS) and Renewable Energy Directive (RED II)<sup>1</sup>, among other legislation, are in constant amendment in order to mitigate the impact that energy transition might cause, if not done properly.

### **Short-termism at the expense of long-term security**

In the long-term, hydrogen may be the best solution, but currently it is not economically available. As for the short term, biomass-derived substitutes for kerosene jet fuel (biojet) are one of the only options for reducing airlines' direct carbon emissions and may be one of the more strategically important uses of bioenergy<sup>5</sup>.

A high demand in biofuels could have a negative impact as their cultivation causes Indirect Land Use Change (ILUC). Biofuels are short to medium term alternatives, but they come with other forms of challenges such as land-use change, monocropping and biodiversity loss. In addition, the energy required to produce biofuels is almost the same as the energy generated by them. This means that land use change for the main economic sources of biofuels (palm, soy, corn, among others) might alter the supposed GHG benefits of biofuel, reducing carbon stock<sup>6</sup>.

### **Current situation**

European governments are beginning to take the development of sustainable jet fuels more seriously, but Europe still allows a high percentage of biofuels; Spain, the Netherlands, Sweden and Finland still have particularly high levels<sup>7</sup>. These countries are contributing to Indirect Land Use Change and promoting crop-based fuels that cause more carbon emissions than the fossil fuels they replace<sup>8</sup>. Although the biofuels industry has been strongly impacted by the Covid19 pandemic, demand for biofuels could rise *further* if measures in economic recovery plans provide additional support<sup>8</sup>.

In 2018, the RED II classified palm oil diesel as an unsustainable biofuel, but the directive failed to cut its subsidized use.<sup>9</sup> Furthermore, the biodiesel market is shifting their operation to soy diesel, in doing so, following the same destructive path<sup>10</sup>. Colombia, one of the largest producers by far, is a victim of the inexorable expansion of oil palm plantation. This expansion led to deforestation and draining of peatland, being a major driver of biodiversity loss in the tropics<sup>11</sup>. In other words, rich rainforests are being cut down and replaced with oil palms, and social conflicts arise when forcing farmers to substitute their crops for palm oil.

### **What it comes down to**

Reducing emissions should not prompt the use of biofuels. If the RED II doesn't regulate the new sources within the ILUC-biofuels list, long-term solutions (Sustainable Aviation fuels "SAF", hydrogen) may be unable to resolve the impacts of deforestation-driving biofuels. On the other hand, in 2023, the derogation that the Commission set for aviation expires<sup>12</sup>, regulating international flights under ETS. In case of reaching an agreement with the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA)<sup>13</sup>, the use of biofuel to reduce emissions might be a major practice worldwide. A stronger commitment and regulation against ILUC might lead to a growing interest in the use of SAF such as secondary biofuels produced from waste and residues that do not give rise to such concern.

Air travel is booming, with the number of air passengers set to double over the next twenty years<sup>14</sup>. Technology may be the main pathway to reduce environmental and social impact of Sustainable Aviation Fuels in the long term, and so improve competitiveness against fossil jet kerosene. However, it's not enough, RED II should consider new amendments to boost aviation's commitments. To decarbonize the transport sector, it is essential to address transport from the demand-side by considering ways to lower demand for transport and make it more efficient. Policy instruments such as carbon taxes, emission trading systems, and ecolabelling are possible options to achieve this objective.

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