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ICAO SEMINAR ON  
ALTERNATIVE FUELS 2017  
ICAO Headquarters, Montréal, 8-9 February 2017



# Aviation biofuel policies

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 **TRANSPORT &  
ENVIRONMENT**





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# ICSA

International Coalition for  
**Sustainable Aviation**





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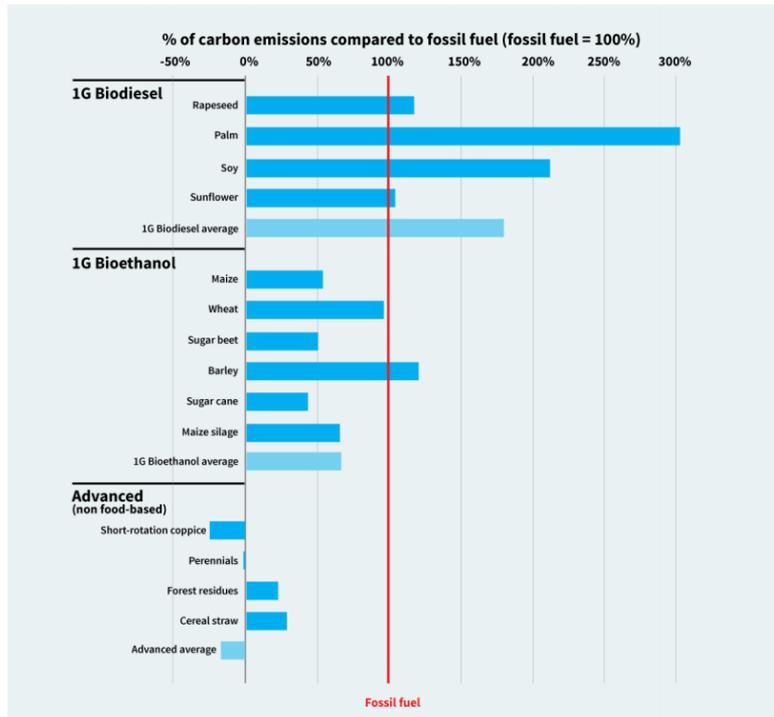
# Biofuels cannot solve aviation's climate problem

- Most are worse than alternative at present
- Availability at large scale unlikely
- Sustainability challenges
- Non-CO2 impacts





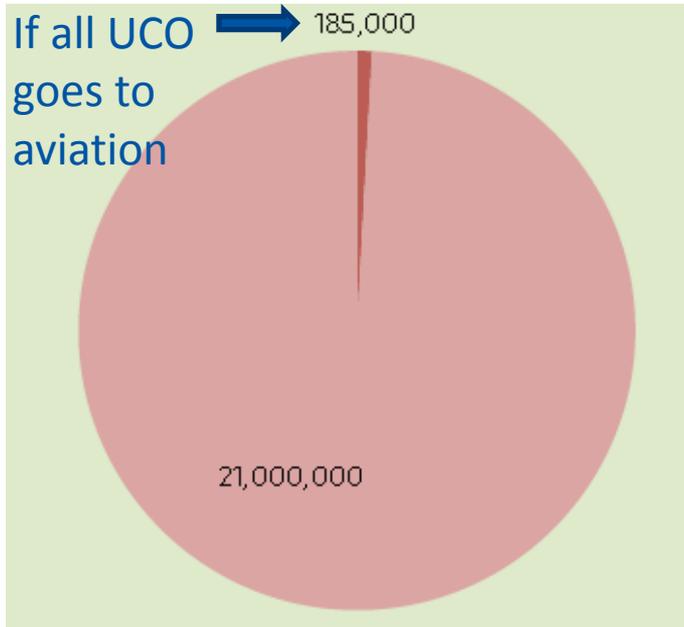
# Many worse than the alternative



- Core LCA
- dLUC & iLUC
- Threshold needed to deal with uncertainty



# Availability



- Example: UCO
  - Availability
  - Competition

How much used cooking oil could be available for the aviation industry in the US? (in million gallons)



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# Sustainability

- From the beginning
- Certainty needed
- Reputational damage

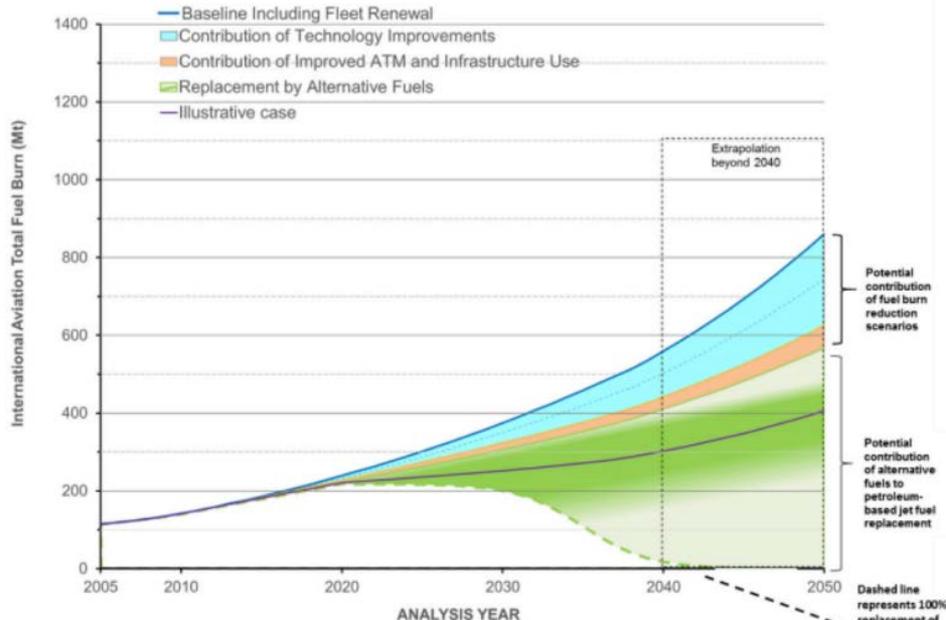
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**Petition - Don't trash the rainforest for "green" jet fuel!**

Please sign  
Help us reach 150,000:  
120,133



\*Illustrative case would require high availability of bioenergy feedstocks, the production of which is significantly incentivized by price or other policy mechanisms

\*\* 100% replacement of alternative jet fuel would require a complete shift in aviation from petroleum refining to biofuel production and a substantial expansion of the agricultural sector, both of which would require substantial policy support

Note: alternative fuels scenarios were modeled for 2020 and 2050; the evolution between those dates was represented using a linear function for the illustrative case and an arbitrary S-shaped function for the full jet fuel replacement scenario

Figure 4. Aircraft Fuel Burn from International Aviation, 2005 to 2050 Updated to Include Potential Replacement of Jet Fuel with Alternative Fuels

- “Illustrative”
  - Not based on likelihood nor scientific soundness
  - Optimistic assumption on land availability
  - Incompatible with Paris
  - No iLUC
- Not appropriate for aspirational goals



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# Incentives?

- Premature
- SAF stakeholders should fight for high integrity of emissions units, MRV and transparency under CORSIA  
→ high carbon price
- Creating incentives that rely on relaxing the integrity of SAF **undermines** the deployment of truly SAF and the credibility of ICAO's climate actions



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# Level playing field with road?

- Fuel taxes
- Value Added Tax



- Pay price premium
- Reduce incentives for road

~ 5% of population have ever flown



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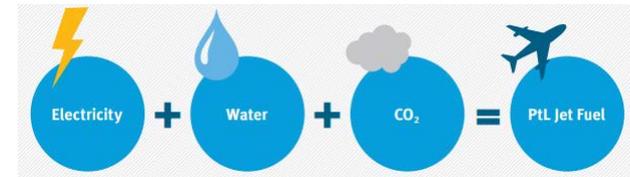
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# Other solutions needed

- Strong CORSIA (high carbon price, robust envi integrity)
- Disruptive alternative fuels
- Abolition of subsidies
- Transformative fuel efficiency
- Improved air traffic control
- Tackle demand



How far I could fly  
with the energy from one hectare

Achievable air mileage for an A320neo per ha of land  
(km/(ha · yr))

