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WORKING PAPER

COMMITTEE ON AVIATION ENVIRONMENTAL PROTECTION (CAEP)

STEERING GROUP MEETING

Brussels, Belgium, 8 to 12 July 2024

Agenda Item 5: Fuels Task Group (FTG)

VIEWS OF THE UNITED STATES ON THE FUELS TASK GROUP

(Presented by the United States of America)

SUMMARY

This working paper provides the views of the United States on efforts in FTG with respect to progress on induced land use change modelling, high electricity input fuels, and CORSIA certification. Specifically, the United States supports the work done by FTG to update indirect land use change (ILUC) modelling, recognizing the challenges and limitations of current modelling. For fuels with high electricity input, the United States sees value in establishing a monitoring period for embodied emissions. Finally, the United States strongly supports explicitly recognizing the ability of Sustainability Certification Schemes to certify products across multiple programs.

Action by the CAEP-SG is in paragraph 5.

1. INTRODUCTION

1.1 The United States acknowledges the significant work to date carried out by the FTG. With an ever-increasing focus on sustainable aviation fuels (SAF) and low carbon aviation fuel (LCAF), both within and outside of ICAO, there is added interest in the FTG's work. We commend the leadership of this group and would like to provide views on three specific items. Section 2 of this paper discusses the importance of supporting induced land use change (ILUC) model improvements for a more accurate and representative inclusion of multicropping. Section 3 provides views on the inclusion of embodied emissions within high-electricity input (HEI) fuels. Section 4 highlights the need for flexibility within the sustainability certification process to enable airlines to choose where to claim the benefits from these fuels. Actions for the Steering Group are in Section 5.

2. VIEWS OF THE UNITED STATES WITH RESPECT TO SIGNIFICANT MULTICROPPING LAND USE CHANGE

2.1 The United States recognises the need to update ILUC methodology with respect to qualified low LUC risk practices (LLRPs). These are practices that, per the CORSIA methodology, have low risk for LUC and, therefore, receive an ILUC value of zero. LLRP implementation avoids market mediated responses that lead to LUC, providing additional SAF feedstock without increasing land requirements.

2.2 ILUC includes consideration of both direct and indirect land use change emissions. Under current CORSIA methodology, the models to calculate these impacts include GTAP-BIO, the Global Trade Analysis Project model focused on biofuels, and GLOBIOM, the Global Biosphere Management Model. GTAP-BIO, a computable general equilibrium model, and GLOBIOM, a partial equilibrium mathematical programming model, represent two different modelling approaches with unique datasets, parameters, and structures. Results from the two models are used to provide estimations of ILUC emissions for fuel pathways. The FTG ILUC subgroup has focused work on several key priorities, including the development of an approach to represent cases with significant multicropping.

2.3 The United States appreciates the extensive work done by the FTG ILUC subgroup in examining approaches for significant multicropping. Existing CORSIA methodology provides two LLRP approaches: yield increase or unused land. For yield increase, eligible land management practice could include sequential cropping where more than one crop is planted per year on the same land and the crops are grown at different periods of the year.

2.4 At FTG/06, an approach was proposed wherein for cases of significant sequential cropping, also referred to as multicropping, implemented before 1 January 2016, a weighted ILUC value can be used. This weighted ILUC value has: a lower bound equal to zero and an upper bound equal to the global CORSIA default ILUC value for the pathway. The lower bound equal to zero reflects the ILUC value assigned to qualified LLRP per LLRP methodology. Per the proposal, the share of sequential cropping area against total harvested area corresponds to the weighting between these two bounds. The proposal is currently limited to cases of significant sequential cropping, and, as proposed, would provide a default ILUC value.

2.5 The United States reviewed the proposal under discussion within FTG regarding default ILUC values for significant multicropping cases. The current proposal, described above, raises a critical question regarding the assumption that cases of significant multicropping do not generate LUC. For integrated cropping systems, such as the corn and soy rotation in Brazil, the ability to sequentially crop these two crops on the same land within the same year provides an additional economic incentive for further land expansion. As both corn and soy are crops with large, global markets, the economic incentive for multicropping cannot be assumed to have no land use change impact.

2.6 The United States recognises the need to continue to progress both ILUC models and will continue its ongoing support of work within the GTAP-BIO model. Given the need to ensure both GTAP-BIO and GLOBIOM have sufficient resources to carry out critical model updates, the United States recommends prioritization of resources to support this work under GLOBIOM. While we recognize the significant benefits available from more efficient land use, the United States continues to believe that there is a significant risk of unintended consequences to the environment and credibility of ICAO's methodology if the models are not better capturing the effects of multicropping.

3. VIEWS OF THE UNITED STATES WITH RESPECT TO HIGH ELECTRICITY INPUT METHODOLOGY

3.1 The FTG core lifecycle analysis (CLCA) subgroup has significantly progressed actual value core lifecycle analysis (LCA) methodologies for CORSIA eligible fuels (CEF) with high electricity inputs (HEI). Key topics include electricity sourcing criteria, additional carbon sources, and embodied emissions accounting.[1] Given the significant electricity requirements for some drop-in fuel pathways, the United States sees value approving a methodology to account for embodied emissions. There has been significant discussion within the FTG on this work, with industry highlighting concerns that the approach could constrain a nascent industry, requiring data that may not always be readily available.

3.2 The United States sees value in establishing a monitoring period for HEI CEF embodied emissions. A three-year monitoring period, starting at the beginning of CAEP/14, would provide sufficient time for fuel producers to advance on data gathering and test the proposed methodology. Prior to the conclusion of the monitoring period, the United States would support FTG work to report out on the appropriateness of the monitoring period.

4. VIEWS OF THE UNITED STATES WITH RESPECT TO FUEL CERTIFICATION

4.1 The United States appreciates the coordinated work across FTG, WG4 and the Sustainability Certification Scheme Evaluation Group (SCSEG) to facilitate CORSIA fuel certification. Continued collaboration with stakeholders across the aviation and fuel sectors has highlighted issues with fuel certification. Knowledge sharing with these stakeholders is key to understand existing challenges and facilitate CEF certification. Current guidance does not clarify the ability of Sustainability Certification Schemes (SCS) to certify a product for multiple national, regional, or international programmes. The current CORSIA SCSs, Roundtable on Sustainable Biomaterials (RSB) and International Sustainability and Carbon Certification (ISCC), work across multiple national, regional, and international sustainability certification programs.

4.2 The United States recognises the challenges of limited product certification, as producers may work with customers that participate in various programs such as CORSIA and ReFuel EU. It is the understanding of the United States that while multiple certifications may be allowed by various programs, the SCSs currently do not allow multiple certifications on a single product, citing the lack of explicit language to this effect. Given the likelihood that, at the time of production, a fuel producer may not know which program the product will be claimed under, it is critical for an economic operator to be able to have their product certified for multiple programs. This flexibility will also allow the purchaser, i.e., the airline, flexibility in its decision about where to claim the emissions reductions from these fuels.

5. ACTION BY THE CAEP-SG

5.1 The CAEP-SG is invited to:

a) agree to continuing FTG work on the ILUC methodology for LLRPs;

b) encourage Members to direct resources for GLOBIOM support;

[1] Further details of the progress made by CLCA on the HEI topic are provided in CAEP-SG/20243-WP/14.

c) agree to a monitoring period of three years for embodied emissions; and

d) direct the FTG to advance work to clarify that SCSs may certify fuel against multiple programs/schemes.

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