



THIRD CONFERENCE ON AVIATION AND ALTERNATIVE FUELS (CAAF/3)

Dubai, United Arab Emirates, 20 to 24 November 2023

SUMMARY OF DISCUSSIONS FOR AGENDA ITEM 2

(Presented by the Secretariat)

Agenda Item 2: Supporting policies to promote the development and deployment of cleaner energy for aviation

1. The Conference considered four Working Papers by the Secretariat, and 16 Working Papers from States and International Organizations. A summary of these papers is detailed below.
2. CAAF/3-WP/3 presented by the Secretariat provided information on various policy approaches by States to promote the development and deployment of sustainable aviation fuels (SAF), lower carbon aviation fuels (LCAF) and other aviation cleaner energies, including information from the ICAO Guidance, as well as the role of ICAO State Action Plans (SAPs) and roadmaps to reduce CO₂ emissions from international aviation. Updates on technical certification aspects of aviation fuels were also provided.
3. CAAF/3-WP/4 presented by the Secretariat provided information on possible metrics for potential quantified goals for cleaner energy for international aviation, as well as projections on the global levels of cleaner energy use for international aviation, including technical inputs by the ICAO Committee on Aviation Environmental Protection (CAEP) and other relevant information. An updated information on the SAF short-term production projections by CAEP was provided in a separate CAAF/3-IP/6.
4. CAAF/3-WP/5 presented by the Secretariat provided information on ICAO's work on the sustainability criteria, sustainability certification, and the assessment of life cycle emissions reductions, for SAF and LCAF, under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). The paper also presented the argument to consider these CORSIA-related elements as the basis for determining the sustainability of fuels used in international aviation.
5. CAAF/3-WP/6 presented by the Secretariat provided information on the fuel accounting and reporting methodologies under the CORSIA Monitoring, Reporting and Verification (MRV) system, including the methodology to reduce an aeroplane operator's offsetting requirements from the use of CORSIA eligible fuels (both SAF and LCAF). It also provided technical inputs by CAEP on possible parameters for fuel accounting and reporting methodologies for international aviation, to ensure consistent application as part of monitoring the progress in the Long-Term Aspirational Goal (LTAG).
6. CAAF/3-WP/39 presented by China provided its proposal on the key elements (Vision, Principles, and Partnership) for a fair and feasible global framework to develop and deploy aviation cleaner

fuels. Views were expressed for a global framework to be developed based on a thorough survey of all States' national circumstances, to refrain from setting up any uniform quantified goals without ensuring that SAF, LCAF and other aviation cleaner fuels produced in developing countries account for a fair share in global production, and that failure in guaranteeing provision of financial support and technology transfer to developing countries would further impact the feasibility of LTAG.

7. CAAF/3-WP/32 presented by the Dominican Republic provided information of its contributions to the mitigation of greenhouse gas emissions and supported the environmentally sustainable economic development of international aviation by means of SAF and LCAF. Views on the importance of capacity building and assistance, in particular for small island developing States in achieving the collective LTAG, the need to strengthen dialogue between States and industry on the development and deployment of fuels, and support for the ICAO Finvest Hub initiative were also expressed.

8. CAAF/3-WP/29 presented by India provided information on its developments towards commitments at UNFCCC and its Paris Agreement, as well as in the field of SAF. Views were also expressed on the global framework for SAF, LCAF and other aviation cleaner energies, including support for the four building blocks, the Finvest Hub initiative, challenges for commercial SAF deployment in developing countries, and consideration that any quantified vision in respect of cleaner energies be further analyzed and taken in the next ICAO Assembly.

9. CAAF/3-WP/10 presented by Oman provided information of its initiatives, including the State Action Plan, SAF feasibility study, and on green hydrogen, which contribute to the achievement of Oman Vision 2040, and supported ICAO to achieve the LTAG of net-zero carbon emissions from international aviation by 2050.

10. CAAF/3-WP/27 presented by Saudi Arabia addressed principles and elements essential to be considered and reflected to reach an agreement on the potential ICAO global framework – including it being inclusive, policy neutral, technology agnostic, based on internationally agreed sustainability criteria, and not instituting additional goals and/or targets, such as intermediate waypoints/milestones. Views on ICAO exploring 'book and claim' systems, and the need to study their potential benefits/impact and ICAO's potential role, implementation support to expand its scope, a cost cautious approach for technology advancement, and allowing developing nations to be part of the emerging fuels market were also expressed.

11. CAAF/3-WP/28 presented by the United Arab Emirates provided information on the national aspirations to lead a low carbon economy, and views on the ICAO global framework for aviation cleaner energies emphasize the importance of sharing knowledge and best practices, support ICAO efforts in facilitating finance including the Finvest Hub initiative, acknowledge the vital role of LCAF, and the urgent need to establish credible accounting mechanisms for SAF and LCAF use.

12. CAAF/3-WP/26 presented by Brazil and Singapore provided views on the need for SAF feedstock and technology neutrality, and urging the recognition of CORSIA sustainability criteria, sustainability certification schemes, and the methodology for the assessment of life cycle emissions as the accepted basis for the eligibility of SAF. This will help widen potential feedstock supply options, de-risk SAF investments to scale-up SAF production and lower costs and accelerate the green transition of international aviation.

13. CAAF/3-WP/22 presented by Japan, Singapore and the United States provided information on the Aviation Green Lane (AGL) concept as a bilateral / multilateral initiative for interested States and airlines to develop and demonstrate accelerated international aviation emissions reduction in a credible manner through tangible efforts. The concept laid out several principles, and requirements including a

possible tiered framework comprising a basket of activities to be implemented across various aspects of a flight through collaboration.

14. CAAF/3-WP/35 Revision No. 1 presented by the United States, and co-sponsored by Japan and the Republic of Korea provided views on adopting a global vision for SAF, LCAF, and other aviation cleaner energies that would support and encourage private sector investment in these technologies, the role of ICAO to facilitate the investments, the need to work together in a spirit of collaboration and compromise to tackle the significant global challenges of climate change, and acknowledging the importance of adhering to the delicately balanced Assembly resolutions on aviation and climate. The carbon intensity of the global fuel pool was highlighted as a metric that could accurately track carbon emissions and include all cleaner energies to measure the industry's progress.

15. CAAF/3-WP/14 presented by AFCAC on behalf of its 54 Member States provided information of its initiative to accelerate the development, production and utilization of SAF/LCAF in Africa, with four main objectives of: development and harmonization of policies, capacity building, technical feasibility studies/assessments, and resource mobilization and advocacy. Views for CAAF/3 to adopt a global framework with balanced policies, enable technological transfers to African States, attract financing to allow States to develop, produce, and deploy SAF/LCAF and other cleaner energy for aviation were also shared.

16. CAAF/3-WP/18 presented by Spain on behalf of the European Union (EU) and its Member States¹, the other Member States of the European Civil Aviation Conference (ECAC)², and EUROCONTROL provided views on CAAF/3 to agree to include a global, collective, and aspirational quantified objective for 2050 and a trajectory, expressed in terms of percentage emissions reduction from the use of aviation cleaner energy, towards it as an integral part of the global framework. Views on inviting all regions and ICAO States to define their policies and actions, based on the policy toolkit and related ICAO guidance, were also expressed.

17. CAAF/3-WP/19 presented by Spain on behalf of the EU and its Member States, the other Member States of the ECAC and EUROCONTROL provided views on the importance of timely SAPs reporting, which could assist ICAO in monitoring the achievement of the LTAG, and further work on the sectoral sustainability framework for fuels. Views for inclusion in the global framework technical inputs of CAEP on possible parameters for fuel accounting and reporting methodologies, as well as support for further work on possible new fuel accounting methodologies, were also expressed.

18. CAAF/3-WP/30 Revision No. 1 presented by members of the International Aviation Climate Ambition Coalition (IACAC)³ expressed views supporting an ambitious global quantified vision for the development and deployment of SAF, LCAF and other cleaner energies, in consistent with the LTAG. Views on the quantified vision to have a feasible trajectory with milestones, be collective, aspirational and not to impose any obligation on individual States or regions, support for metrics in terms of percentage CO₂ emissions reductions from the use of cleaner energy or mass average carbon intensity of the fuel, and support for the provision of voluntary funding to capacity building and initial work on the ICAO Finvest Hub initiative, were also expressed.

¹ Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

² Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Moldova, Monaco, Montenegro, North Macedonia, Norway, San Marino, Serbia, Switzerland, Türkiye, Ukraine and United Kingdom.

³ Austria, Canada, Czechia, Denmark, Dominican Republic, France, Finland, Germany, Greece, Italy, Japan, Kenya, Netherlands, Norway, Republic of Korea, Sweden, Switzerland, Trinidad and Tobago, United Kingdom, United States, and the EU.

19. CAAF/3-WP/23 presented by the Air Transport Action Group (ATAG), Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Air Transport Association (IATA), International Business Aviation Council (IBAC) and International Coordinating Council of Aerospace Industries Associations (ICCAIA) provided views how a globally-harmonized, balanced approach to policy making could help avoid negative market distortions and carbon leakage. Views on an effective policy aiming to be: harmonized across States and industries; stable and predictable; technology-neutral; feedstock-agnostic; setting primacy for globally-recognized sustainability standards; facilitate certification of cleaner energy supply chains; stackable; and ensuring mechanisms to measure emissions reductions, were expressed. In addition, the view on the importance of a global and robust cleaner energy accounting framework was also expressed.

20. CAAF/3-WP/34 presented by the ATAG, ACI, CANSO, IATA, IBAC and ICCAIA outlined the current state of the SAF industry, including supply and demand perspectives for the next few years, and provided views on a global framework to further support development, investment and production of SAF globally, beyond currently forecast levels, and the global framework to be regularly reviewed including the level of ICAO Vision ambition and implementation elements, with expectation that CAAF/4 should be convened before the 43rd ICAO Assembly in 2028.

21. CAAF/3-WP/36 presented by the International Coalition for Sustainable Aviation (ICSA) provided views on adopting a Vision at CAAF/3 that: prioritizes high standards of environmental and social integrity; expresses aspirational goals using metrics that primarily focus on the carbon intensity of alternative fuels on a lifecycle basis; and includes provisions to avoid double claiming of emissions reductions. The view on the need for alternative jet fuels to deliver public-health benefits by reducing jet fuel aromatic content, and thereby non-volatile particulate matter emissions, was also expressed.

22. The Chairperson also acknowledged the contributions of the following Information Papers to the Conference: CAAF/3-IPs 1, 2, 3, 4 and 6 by the Secretariat, and CAAF/3-IP/7 by ICCAIA, CAAF/3-IP/8 by Norway, CAAF/3-IP/9 by Oman, CAAF/3-IP/10 by the IACAC, and CAAF/3-IP/11 by China.

23. During the following interventions, there was a good convergence of views under Building Block 1 – *Policy and Planning* on the need for all States to develop and implement appropriate policies to their circumstance, and the important role of State Action Plans, and that a global framework should provide opportunities to work toward the decentralization of aviation cleaner energy production across all States and regions. The need for such policies to be technology-neutral and feedstock agnostic was also highlighted.

24. A number of views also focused on a possible Vision, including the support for possible quantification of a collective global aspirational Vision, with appropriate metrics and timelines (short-term and long-term), as part of a signal to be provided by the global framework to induce demand, trigger supply and attract additional investment. It was reemphasized that such Vision should be realistic, collective and consistent with the aspirational nature of the LTAG without specific obligations to individual States.

25. Some concerns over such possible quantification of a Vision were also expressed, in terms of its consistency with the approach in the LTAG agreement, the readiness and maturity of analytical work, and possible negative impact on the growth of air transport, especially in developing countries. Some have also expressed that the Vision and its ambitions should be balanced with the other Building Blocks of the global framework, including the provision of implementation support and financing.

26. In relation to the consideration of Building Block 2 - *Regulatory Framework*, there was a good convergence of views to support the existing CORSIA framework and its sustainability criteria,

sustainability certification schemes, life-cycle assessments, as the robust and continued basis for the eligibility of aviation cleaner energy. The need for increasing the number of Sustainability Certification Schemes, and accelerating the analysis and approval of life cycle emissions for new fuel sources and pathways, with due consideration on safety, was highlighted.

27. Various views were expressed on the role of ICAO in a harmonized accounting methodology on the use of aviation cleaner energies and claiming of environmental benefits, and there was a general convergence of views on the need to undertake a further study to better understand fuel accounting systems, for consideration of ICAO's possible role.

— END —