

ICAO Regional Seminars 2023

Industry delegation aide memoire

High-level comments

The ICAO Regional Seminars are part of a process to deliver a robust outcome of the third ICAO Conference on Aviation and Alternative Fuels (CAAF/3). They will enable feedback to the ICAO Council from the wider group of ICAO Member States, but are not supposed to be 'negotiations' or decision-making sessions in themselves. It's a process of consultation of States. We do not expect many States to come to these meetings with firm positions on a CAAF/3 outcome, but they will be using these meetings as an opportunity to find out what other States are thinking. **It is a great opportunity for the industry to start sharing our thoughts.**

ATAG has a working group pursuing a common industry position for CAAF/3, however we do not – at this stage – have an industry position on a potential quantitative outcome of CAAF/3. It is too early to be debating a specific quantitative goal with States. In fact, there is not a clear position on how any such goal should be expressed (for example: it could be relative, or actual such as "SAF should be X% of fuel uplift in a given year"; or "X million tonnes of SAF should be delivered in a given year"; or the "average of carbon intensity in fuel being X% lower in 2050 compared to 2020").

The CAAF/3 is more than just settling on some numbers over a few days of discussion. It is also core principles on what is required and commitments necessary for the global SAF sector to scale at the necessary pace and the support given to developing States to reach the same goals. These principles will form the backbone of reaching a quantitative agreement and should be seen as foundational – hence it is the right time in the process (7 months out) at the regional seminars to be discussing / presenting these. So, whilst we do not have an industry goal agreed yet (either for 2050 or a 2030 milestone), we have developed a few principles that should be considered as the industry, governments, and ICAO work towards an outcome of CAAF/3. These can be shared with attendees of the Regional Seminars.

Principles of a CAAF/3 Goal decision

- The CAAF/3 discussions should concentrate on SAF deployment (with appropriate consideration given to other forms of energy such as direct hydrogen and electric propulsion), but re-opening the long-term aspirational goal discussions from last year must be avoided.
- An overarching long-term global aviation SAF deployment goal should be set.
 - While each region and each State has potential resources available for producing SAF, it is recognised that each region is at different starting points in capacity building, therefore the goal should be global in nature and not prescriptive for each State.
- Whilst the goal will likely be for international traffic (given ICAO's remit), any metric should be translatable to domestic traffic to ensure whole-aviation decarbonisation.
- The goal should be aligned with the global roadmaps for SAF deployment required to reach net-zero carbon by 2050, whilst also being realistic and achievable in terms of timeframe, feedstock availability, sustainability and global development.
- The goal should be an average of the fuel used globally, allowing some States to accelerate decarbonisation faster and others the time needed to scale-up.
 - Global goals should not automatically be ascribed to particular States, rather States should determine their own contribution to the global goal in line with local opportunities and development.
- Any goal should be ascribed to global, regional, or state level production and/or import of SAF rather than its use in individual airports.
- It is important that sustainable aviation fuels can be qualified as such through adequate sustainability principles and themes. CORSIA Eligible Fuels (CEF) sustainability criteria for SAF, established and maintained by the Fuels Task Group (FTG) should be used as qualifying criteria for accounting of fuel production and use to meet these goals – the principles and criteria are valid even outside their use in CORSIA itself.
- Lower Carbon Aviation Fuels LCAF – at least a 10% carbon intensity improvement from the baseline fossil fuel) can make an important transitional tool, especially while neat SAF must be blended with fossil fuel to meet the technical standard of ASTM D1655
 - However, there is a clear distinction with SAF and these fuels cannot be seen as the long-term solution to aviation decarbonisation given their limited decarbonisation potential.

Things we need to look out for / topics that may be brought up by States

- Any questions of re-opening the sustainability criteria of SAF or LCAF for CORSIA should be noted. Industry position is that CAAF/3 is not the place to open such matters as they are highly technical discussions which occur in the Fuels Task Group with the right experts.
- It would be good to get an idea of the level of push for LCAF and from which countries. Be aware that some States will probe industry regarding our position towards LCAF. A simple but safe comment is to note that aircraft operators follow procedure / regulation and LCAF is permitted from 2024 as a compliance option in the CORSIA agreement. Concerning the decarbonisation potential of LCAF – it is limited (to about 10%-15% relative to the fossil baseline). Basic math implies the emphasis for long term decarbonisation must be on SAF.
- How well understood are some of the basics of SAF – from feedstock types to the role of airports in the SAF process?
- We should also monitor any discussion relative to the use of direct air carbon capture in the context of SAF and from which country.
- Should we just introduce a global mandate? While this approach is favoured by some States / regions, it is unlikely to find global support and could carry a high risk of competitive distortions if not applied uniformly in practice and without a package of support measures. From an economic perspective the mandate policy is a blunt instrument (meaning it won't achieve the most efficient outcome due to lack of incentive for cost of production reductions) relative to other options in the policy tool box.

Thoughts on the dialogue sessions

Dialogue session 1 - policies

What do you see as the key challenges for your State on the development of cleaner energy and its deployment (including sustainability, certification, scaleup production, distribution, access/utilisation)?

- *We expect a lot of states will say a lack of knowledge and financing*
- *Industry believes that the ICAO ACT-SAF concept is a very good one, but it should be carried out in a neutral way (i.e. not driven by the political positions of those donor countries paying for it). This will need to be organised alongside many other capacity building opportunities, it cannot all flow through ICAO.*
- *Financing will be vital and we see an important role for blended finance in this process.*
- *We also believe there is an opportunity and necessity for the finance sector to engage more seriously with the aviation decarbonisation agenda. E.g. become more inventive on how to reduce project risk for SAF. Particularly when several finance sector entities continue to generously lend on favourable terms to the oil and gas industry.*
- *We recognise that aviation is not the only sector seeking to decarbonise, but aviation does have some unique challenges. For long haul aviation transport using wide body aircraft, alternatives to a drop-in liquid hydrocarbon fuel will be unlikely before 2050. Hence, we ask policy makes to recognise the variety of decarbonisation options available to all sectors and ask that feedstock is prioritised to sectors such as aviation that will require significant volumes of SAF.*

Can you share your State/Organization's experience on the development of policies to foster the development and deployment of SAF, LCAF and other cleaner energy? Please describe how the policy works and any successes/lessons learnt.

- *Good policy will be vital to help scale-up SAF production. Next question you will get... is what is good policy? Good policy solves a market failure in the most efficient way. Put simply, policy intervention is about reducing risk for the thing you want to happen. In our case – generally speaking it is to see SAF plants be developed. The [ICAO policy guidance](#) document is worth reviewing in advance of the regional workshops.*
- *There is no 'one-size-fits-all' approach to policy. Each country or region will have their own path and circumstances. We recommend each country look at the options that exist in the ICAO toolkit or the WEF toolkit and examine which are right.*
- *There is a tendency by some policymakers to only consider a blend mandate (i.e. X% of jet fuel uplifted must be SAF by 2030). Whilst these can be useful to send demand signals and enable investment, if they are not well designed as a policy package (including incentives) there can be consequences for airlines servicing the country.*
 - *A mandate should be seen as part of a package of measures which help boost the supply of SAF to meet the given target. De-risking capital investment in SAF production, providing incentives for airlines to use SAF, tax breaks for construction and other support mechanisms can help underpin a mandate. In some cases, the mandate may not even be needed if the support mechanisms are robust enough.*

Dialogue session 1 - monitoring and reporting

Can you share your State/Organisation's experience on the collecting and reporting of data and information on SAF, LCAF and other cleaner energy in your State Action Plans?

- *Tracking data and information on SAF proves difficult due to the multitude of projects popping up and the lack of transparent source of information.*
- *Tracking public commitments is easier than collecting information on SAF production itself.*
- *States could voluntarily report on SAF production through appropriate reporting mechanisms and could provide projections for the future through the State Action Plans or similar mechanism*
- *The same applies to hydrogen and electricity.*

How can the ICAO guidance and tools help?

- *A toolbox needs to be designed for States and operators. This toolbox should contain in particular:*
 - *guidance for developing national policies to support SAF production and deployment for aviation*
 - *guidance to establish finance plans with the support of institutions and private sectors*
- *Not only related to SAF, guidance to create and/or update State Action Plans including information on actions plans for SAF and other energies (could contain national goals that support the global goals of ICAO)*

In your view, what is the ICAO's role regarding the accounting and reporting system of SAF, LCAF and other cleaner energy in future?

- *ICAO can design standards and recommended practices for States to implement.*
- *CORSIA offers a reporting mechanism for CORSIA eligible fuels with central registry, nothing is currently defined for hydrogen or electricity*
 - *This should be used as the primary mechanism.*
- ***Book and claim** will be an important tool to help scale up SAF use in the early years in the most efficient way possible. It will also enable rapid support for SAF development in developing countries.*
- *At the moment, various book and claim initiatives exist in the market. This is important in facilitating the mechanism for book and claim for CEF.*
- *IATA, A4A and other relevant stakeholders are working to align some differences in these initiatives to provide more clarity in the book and claim mechanism for CEF.*
 - *It is important for ICAO and other regulatory bodies to not reinvent the wheel by replicating and duplicating the existing market efforts.*
 - *ICAO however, can work together with IATA, A4A and other relevant stakeholders in accepting a robust mechanism for book and claim which would interact with the use of CEF.*
- *There will be multiple book and claim platforms in the market, it's important that these platforms are interoperable with one another and have the ability to interact with CORSIA Central Registry (CCR) at the same time. This will help to avoid any fraudulent activities, especially in addressing double claiming and double counting.*
- *Clarify how a mass balance and/or book and claim chain of custody methodology can be implemented – [see the appendix](#).*

Dialogue session 2 - ACT SAF

Can you share your State/Organisation's views on the main areas of assistance and capacity-building needs?

- *The current ACT-SAF programme covers all the important areas, strong focus on needs from States and feasibility studies, this is good*
- *It will be important to maintain the ACT-SAF post CAAF/3 to continue supporting States in the context of No Country Left Behind initiatives*

Do you have any feedback/suggestions for the improvement and prioritization of ACT-SAF (e.g. ACT-SAF training areas, sharing of SAF technology development, SAF feasibility studies) and other ICAO activities?

- *The role of the Technical Cooperation Bureau (TCB) could be reinforced in ACT-SAF, fostering implementation through multi-lateral cooperation in regions and across regions*
- *The role of the ICAO Regional Offices could be reinforced as well to enable action plans to be tailored to the regional eco system with operators, energy provider, investors and financial institutions, etc...*
- *Any opportunity to make ACT-SAF as inclusive as possible for industry wishing to share knowledge, guidance and assistance should be further developed.*

Dialogue session 3 - financing

Can you share your experience (challenges and opportunities) in obtaining and/or providing public or private financing to aviation-related cleaner energy projects in your State/Organisation?

- *Typically, the ease of obtaining finance is linked to risk.*
- *Helping projects reduce risk will open up finance options.*
- *Blended finance and public/private partnerships could prove vital to scaling up SAF.*
 - *See the ATAG briefing note on blended finance.*
- *There is potentially a role for States to absorb some SAF development risk when looking at in-country opportunities.*

Dialogue session 4 - CAAF/3

Can you share your State/Organization's expectations for CAAF/3, in support of the development, deployment and access to cleaner energy for aviation?

- *Main expectation is an update to the CAAF/2 declaration with more ambition on the 2050 vision (consistent with LTAG) and an associated roadmap.*
- *The roadmap should contain an intermediate qualitative, or quantitative goal in 2030 and other building blocks*
- *We have established the industry roadmap re Waypoint 2050 and Fly Net Zero and contributed to LTAG report.*
 - *Waypoint 2050 can be found at www.aviationbenefits.org/W2050*
- *We know what we need, and what we need is supportive state action plans and public policies.*

What additional information does your State/Organisation need to be better prepared toward discussion at CAAF/3?

- *More understanding for governments of the financing potential by the multilateral development banks would be useful.*
- *A robust ICAO support mechanism would be good – going beyond ACT-SAF and towards financing as well.*
- *A careful understanding of the most useful policy mechanisms to scale-up SAF at a national level.*

Appendix: Chain of Custody

How do we account for the sustainability credentials of the SAF we plan to use?

There are 3 main options:

1. **Physical Segregation:**

A physical segregation approach requires 'physical separation' of different product streams (e.g. certified material from non-certified material) throughout the supply chain. This chain of custody approach delivers consignments that physically contain 100% of the specific product stream, but they can be from a variety of sources. It does not necessarily provide traceability back to the source of the feedstock (e.g. a specific farm or plantation) but could. Physical separation can either be by location (e.g. separate storage or distribution channels) or by time (e.g. batch-wise processing or delivery).

2. **Mass-balance:**

A mass-balance approach allows for products with different characteristics to be physically mixed, but are kept administratively separate (think SAF from used cooking oil and the cooking oil has been collected from various restaurants). At each step in the supply chain, companies do not sell or produce more products with specified characteristics than they sourced. The mass of feedstock that was input at the start of the process has to be balanced with the mass of the product leaving it at the end. A documentation trail helps ensure this process is robust and transparent.

Mass-balance is required in the EU under REDII. Mass Balance is the accepted approach under CORSIA with the 'control point' being the blend location, typically the airport. Once the fuel enters the airport it can be distributed to wing via the joint user hydrant instillation (JUHI), akin to traditional fuel farm book and claim.

3. **Book and Claim:**

A Book and Claim approach enables trade in the physical product to be completely decoupled from the trade in information (or certificates). For the volume of SAF that is claimed to be used, it can be claimed that sufficient material with those characteristics has been added to the system (taking into account relevant conversion factors). A more complex system might involve applying value to scope 1 and scope 3 emissions, encouraging non-physical fuel users (such as corporate travel departments) to participate in these transactions.