

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

Dubai, United Arab Emirates, 20 to 24 November 2023

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

Agenda Item 3: Assistance and capacity building for cleaner energy

Agenda Item 4: Financing cleaner energy

# SAF POLICY, ASSISTANCE, AND CAPACITY BUILDING ACTIVITIES BY MEMBERS OF THE INTERNATIONAL AVIATION CLIMATE AMBITION COALITION

(Presented by the International Aviation Climate Ambition Coalition (IACAC))

#### **SUMMARY**

This information paper summarises efforts by Members of the International Aviation Climate Ambition Coalition (IACAC or the Coalition) on supporting Sustainable Aviation Fuel (SAF) production and uptake, as well as capacity building efforts.

#### 1. **INTRODUCTION**

- 1.1 This information paper provides a collection of efforts by Members of the International Aviation Climate Ambition Coalition (IACAC or the Coalition) on supporting SAF production and uptake in their jurisdictions. This information paper also highlights efforts that Members of the Coalition are taking to promote outreach, capacity building, and training with regards to building SAF supply chains in states or regions that have articulated the need for support. Through these examples, Members of the Coalition wish to emphasize their willingness to encourage the aviation sector to strive to meet its long-term aspirational goal of net-zero carbon emissions by 2050, in respect of ICAO's *No Country Left Behind* initiative.
- 1.2 The Coalition wishes to emphasize that the information presented here is non-exhaustive. Due to the short time frames to collect initiatives from Coalition Members, the information presented in this paper is an initial list of activities so that it may provide information that could be useful to the Conference. The Coalition will continue to update this collection of information on SAF efforts and capacity building.

# 2. POLICIES AND REGULATIONS TO DRIVE SAF PRODUCTION

2.1 Members of the Coalition have developed national policies and strategies to promote SAF uptake, provide policy assurance for industry and secure investment for the continued growth of domestic SAF production and deployment, and contribute to the achievement of the long-term aspirational goal of net-zero carbon emissions by 2050. The following are examples of some of the national policies and strategies implemented by Coalition Members:

# 2.2 Canada

- 2.2.1 Published in September 2022, Canada's Aviation Climate Action Plan sets out a vision for net-zero GHG emissions –both domestic and international by 2050 for Canada's aviation sector and identifies the key measures to get there. The Action Plan is the result of the collaborative efforts between the Government of Canada and the aviation industry and meets Canada's international commitments to submit an updated action plan to the International Civil Aviation Organization (ICAO).
- 2.2.2 The Government of Canada has set binding commitments to achieve net-zero emissions by 2050 in the Canadian Net-Zero Emissions Accountability Act. As required by the Act, Canada published the first Emissions Reduction Plan (ERP) in 2022, establishing an ambitious and achievable roadmap for reaching Canada's 2030 emissions reduction target. To ensure we maintain our commitments in the midto long-term, Canada's Aviation Action Plan will undergo a series of reviews in the coming years.
- 2.2.3 To achieve net-zero by 2050, a basket of measures needs to be implemented. The Action Plan defines key decarbonization measures that are needed, including planned actions related to the development and adoption of green aerospace, improvements in ground and air operations, the widespread availability and use of SAF and out-of-sector reductions. It also serves as a foundation upon which the Government of Canada will further engage stakeholders, experts, and the public on the most effective and equitable path forward to delivering on this ambitious vision. In addition to these primary measures, other supporting and enabling measures are needed to ensure the vision is achieved, including research, development and demonstration, infrastructure investment, non-aircraft related ground operations, and policy and regulatory development.
- 2.2.4 This plan sets an aspirational goal of 10% SAF use by the year 2030, with a view to sending a clear signal that Canada and the aviation sector recognize the need for significant volumes of sustainable low carbon fuel to achieve its vision of net-zero by 2050.
- 2.3 Germany See Appendix
- 2.4 Japan See Appendix
- 2.5 Kenya See Appendix
- 2.6 Norway
- 2.6.1 Norway has a binding mandate (quota obligation) for advanced jet biofuels in force since 2020. The mandate is imposed on the fuel suppliers only, based on the mass balance principle, and built on a similar mandate in the road sector. In the national aviation strategy presented in a white paper to the Parliament in 2023, the Norwegian government stated that the binding mandate is the main means of promoting the use of advanced jet biofuels in the aviation sector.

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- 2.6.2 The Norwegian government intends to increase the current mandate to 2 per cent from 2025. The State-owned airport operator Avinor, managing 43 airports across Norway, showed in 2016 together with its industry partners that SAF could be blended in the ordinary fuel farm facilities at Oslo airport and SAF thus was made available for all airlines refuelling at Oslo airport.
- 2.6.3 Public procurement of travel services could play a vital role to promote the use of SAF in the national context, in addition to the existing binding mandate. A recent agreement between the Norwegian Defence and the airline Norwegian Air Shuttle ASA, which strongly incentivises the use of SAF, is particularly interesting in this respect.
- 2.6.4 In the national context, SAF is not seen in isolation, but as part of a wider energy mix covering hydrogen, electricity, and hybrid solutions. To learn from and cooperate with other sectors and transport modes is also seen as important.

#### 2.7 Sweden

- 2.7.1 Sweden is engaged in ramping up SAF production. In September 2023, the Swedish Energy Agency published a report that summarised current and planned Swedish SAF production until 2030. The report is available in Swedish here: <u>Luft under gröna vingar Planerad produktion av hållbara flygbränslen i Sverige Transportstyrelsen</u>
- 2.7.2 In addition, a summary of programmes funded by the Swedish Energy Agency was designed to accelerate the transition to fossil free aviation for the period 2018 2023 and can be found here: <a href="https://energimyndigheten.a-w2m.se/Home.mvc?ResourceId=215377">https://energimyndigheten.a-w2m.se/Home.mvc?ResourceId=215377</a>

#### 2.8 Switzerland

- 2.8.1 The key to reach the national goal of net-zero carbon emissions in aviation until 2050 are sustainable aviation fuels, especially produced from renewable, non-biogenic energy sources. This is the clear point of view that the Swiss Federal Council has made in its long-term climate strategy in 2019. Since then, significant progress has been made in Switzerland. Starting in 2021, the first deliveries of SAF have been uplifted in Switzerland. In 2022, the Federal Office of Civil Aviation published a strategic report "on fostering the development and uptake of sustainable aviation fuels". The key pillars of this strategy are already being implemented.
- 2.8.2 The first pillar foresees the need to foster the demand for SAF. This is implemented by a blending mandate for SAF, which is currently discussed in parliament, so far with unanimous support. The blending mandate is aligned with the quota and criteria of the European Union and aims to be applied starting in 2025.
- 2.8.3 The second pillar consists of fostering the supply of SAF. To this end, the development and upscaling of new pathways are supported with a wide array of funding instruments, with additional resources accompanying the blending mandate. Swiss researchers have pioneered novel pathways, especially in the domain of solar fuels. Switzerland aims to retain and expand its position among the leading countries in these technologies.
- 2.8.4 The third pillar completes the strategy by adding flanking measures. This includes the use of book and claim systems to simplify access to SAF and facilitation efforts with the aim of fostering international and intersectoral collaboration, which will help to enable a successful scale-up of SAF production to achieve aviation's climate goals.

# 2.9 United Kingdom

- 2.9.1 The UK set out how it will achieve net zero emissions in aviation by 2050 in its Jet Zero Strategy, published in 2021. To deliver on this ambition, the UK government is committed to being a global leader in the development, production, and use of sustainable aviation fuels (SAF). The UK has introduced a suite of policy measures to create demand for SAF in the UK, and to create the right long-term conditions to attract investment to develop a UK SAF industry.
- 2.9.2 To create growing SAF demand the UK will introduce a mandate for fuel suppliers to supply SAF in the UK from 2025. The UK will require at least 10% of aviation fuel to be derived from sustainable sources by 2030. To secure meaningful carbon savings the mandate will only support the most sustainable fuels, with eligibility being restricted to waste and residue-derived biofuels; recycled carbon fuels and power to liquid fuels. The government has recently consulted on the detailed design of the scheme and is currently developing a final policy position.
- 2.9.3 To develop a UK SAF industry, the UK has made £165m available through the Advanced Fuels Fund (AFF) to support the commercial deployment of innovative fuel production technologies. The AFF supports the development of first-of-a-kind commercial projects to get closer to final investment decisions and to attract sufficient external investment. Five projects have already been awarded a share of the funding and the winners of the second round of funding will be announced in 2023. The UK will also launch a SAF Clearing House in 2023, to support testing and approval of new SAF fuels. The Clearing House will expediate and reduce the costs of fuel testing, easing access to market and de-risking investment in UK SAF projects.
- 2.9.4 To create the conditions to encourage investment in SAF projects the UK has committed to design and implement a SAF revenue certainty mechanism. The intention is that this mechanism will be industry funded. The government included an amendment to its Energy Bill that commits to publishing a consultation on the options for designing and implementing the mechanism within six months of the Energy Bill becoming law. The UK also published a delivery plan outlining the timeline for how such a mechanism could be delivered by 2026.

#### 2.10 United States

# SAF Grand Challenge and the Roadmap

- 2.10.1 The SAF Grand Challenge is the result of Department of Energy (DOE), Department of Transportation (DOT) Federal Aviation Administration (FAA), and U.S. Department of Agriculture (USDA) launching a government-wide Memorandum of Understanding (MOU) that will attempt to reduce the cost, enhance the sustainability, and expand the production and use of SAF while:
  - Achieving a minimum of a 50% reduction in life cycle greenhouse gas emissions compared to conventional fuel.
  - Meeting a goal of supplying sufficient SAF to meet 100% of aviation fuel uplift by 2050.
- 2.10.2 The SAF Grand Challenge and the increased production of SAF will play a critical role in a broader set of actions by the United States government and the private sector to reduce the aviation sector's emissions in a manner consistent with the goal of net-zero emissions for the U.S. economy, and to put the aviation sector on a pathway to full decarbonization by 2050.

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- 2.10.3 In recognition of the critical role that drop-in synthesized hydrocarbon fuel from waste streams, renewable energy sources, or gaseous carbon oxides or SAF will play in addressing the climate change crisis, and its role for jobs and the economy, DOE, DOT, and ISDA undertake the MOU to ensure the highest level of collaboration and coordination across the agencies.
- 2.10.4 Through the MOU, DOE, DOT, and USDA intend to accelerate the research, development, demonstration, and deployment needed for an ambitious government-wide commitment to scale up the production of SAF to 35 billion gallons per year by 2050. A near-term goal of 3 billion gallons per year is established as a milestone for 2030.

# I.R.A. SAF and Clean Fuel Tax Credits

- 2.10.5 Provisions in the recently passed Inflation Reduction Act (IRA) seek to provide incentives to boost domestic production of SAF and bridge the cost gap between SAF and petroleum jet fuel. Specifically, IRA includes three incentives for SAF: (1) SAF Blenders Tax Credit (BTC), (2) Clean Fuel Production Credit (CFPC), and (3) a new SAF and low-emissions aviation technology grant program.
- 2.10.6 The BTC provides a tax credit starting at \$1.25 per gallon for qualified fuel blenders that supply SAF with at least 50% lifecycle GHG emissions reductions compared to conventional jet fuel. Fuels that exceed the minimum threshold are eligible for an additional \$0.01 per gallon credit for each percentage point of emissions reductions over 50 percent (up to a maximum of \$1.75 per gallon). The BTC is technology- and feedstock-neutral, which allows SAF to be made from biomass, waste streams, direct air capture, and other sources, and will end at the end of 2024.
- 2.10.7 The CFPC will be in effect from 2025 through 2027. Unlike the SAF BTC, the CFPC is not exclusive to SAF, though SAF is eligible for a higher credit than other types of biofuels due to the amount of investment needed to make it cost competitive. The methodology for calculating the value of the CFPC is slightly more complex than the SAF BTC, but it is similarly based on a sliding scale that rewards cleaner fuels with higher credits ranging from \$0.35 to \$1.75 per gallon.

## I.R.A. Section 40007 Program

2.10.8 In addition to the SAF BTC and CFPC, IRA also allocated \$297 million for the Sustainable Aviation Fuel and Low-Emissions Aviation Technology Grant Program to enable state and local governments, airport sponsors, for profit companies, research institutions, and non-profits to produce, transport, blend, or store sustainable aviation fuel, and to develop or apply low-emission aviation technologies. The grant program will be administered by the FAA, and will incentivize the mass production of SAF at scale and create domestic jobs and economic opportunities for farmers, manufacturers, start-ups, and others in the biofuels supply chain.

#### 3. CAPACITY BUILDING EFFORTS

3.1 Coalition Members commit to "promoting capacity building support for the implementation of CORSIA and other ICAO climate measures, including to advance uptake of freely available tools and to expand regional expertise accreditation and access to markets for sustainable aviation fuels and CORSIA Eligible Emissions Units."

<sup>&</sup>lt;sup>1</sup> Coalition Declaration Commitment 7 <u>Declaration: International Aviation Climate Ambition Coalition - GOV.UK (www.gov.uk)</u>

- 3.2 Members of the Coalition also support each other to ensure all Coalition members have a minimum level of understanding of technical issues related to SAF to allow them to engage actively in the CAAF/3 process and to facilitate networking and capacity building connections between Coalition members on SAF. To that aim, the Coalition held a Capacity Building Workshop on SAF in September 2023 to share insights on all aspects of SAF and establish capacity building relationships for ICAO's Assistance, Capacity-Training for SAF (ACT-SAF).
- 3.3 The following are examples of some of the outreach efforts and capacity building support that Members of the Coalition have and continue to engage in across different regions to promote SAF uptake, development, and deployment in accordance with ICAO's *No Country Left Behind* (NCLB) initiative.

# 3.4 The European Union

- 3.4.1 The European Union and its Member States have several ongoing initiatives on SAF capacity building. Funds from the EU are used to develop projects in Africa, Asia, and Latin America (Appendix A of European Union and ECAC States working paper WP/xx). Additional assistance has been committed recently including:
- 3.4.2 €1.6 million (CAD 2.3 million) of EU funded project to be implemented by ICAO for 10 feasibility studies on SAF (India and African States);
- 3.4.3 €2,4 million (CAD 3.48 million) of EU funded project to be implemented by the European Union Aviation Safety Agency (EASA) to foster local SAF value chains and support economic entities in obtaining sustainability and technical certification for SAF (in India and a dozen African States);
- 3.4.4 EU financial support in the form of staff secondment related to ICAO ACT-SAF;
- 3.4.5 A voluntary contribution from France of USD 750,000 (CAD 1,029,000), consisting of both a voluntary contribution to the ICAO Environment Fund and the secondment of staff for activities related to ACT-SAF.
- 3.4.6 A voluntary contribution from the Netherlands of €500,000 (CAD 718,000) to the Voluntary Environment Fund;
- 3.4.7 Support provided by the European Bank for Reconstruction and Development (EBRD) for conducting feasibility studies and enhancing capacity through initiatives in Kazakhstan and Egypt.

# 3.5 *United Kingdom*

3.5.1 The UK supports ICAO's Assistance, Capacity Building and Training for Sustainable Aviation Fuels (ACT-SAF) programme and signalled its intention to participate at the launch event in June 2022. In September 2023 the UK committed to provide direct capacity building to three states before the end of March 2024, in support of ACT-SAF, with a view to expand support further thereafter. This initial offer will focus on providing introductory training and policy implementation support to requesting states. This programme is worth around 200,000 CAD (£120,000) this year. This is an initial commitment and the UK is working to expand its support to include certification support and feasibility studies in 2024, as well as more States.

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- 3.5.2 Also, in September 2023 the UK announced a 750,000 CAD (£450,000) voluntary contribution to the ICAO Environment Fund to enable at least three feasibility studies on sustainable aviation fuels for states at the beginning of their SAF 'journey'.
- 3.5.3 These actions, worth nearly 1 million Canadian dollars in total, are just the start of the UK's commitment to support the deployment of SAF in all world regions. States who are interested in receiving ACT-SAF support from the UK should contact the UK delegation or the ICAO Secretariat.

#### 3.6 *United States*

#### **ASCENT update (Project 93)**

- 3.6.1 FAA has been working for many years through the university-led ASCENT Centre of Excellence (COE) and Volpe Transportation Centre to develop domestic supply chains to enable SAF production. This effort has resulted in data, analytical tools, and analyses to understand the potential environmental and economic benefits that could result from the development of these supply chains while also working to understand the barriers to their development.
- 3.6.2 As an extension of these efforts, a new ASCENT Project 93 titled "Collaborative Research Network for Global SAF Supply Chain Development," is being stood up which will involve Washing State University (WSU), Manhattan Institute of Technology (MIT), University of Hawaii (UH) and the DOT Volpe Transportation Centre. Through collaboration with the World Bank and other international partners with similar interests, this work will enable the development of SAF supply chains around the globe.
- 3.6.3 Existing partners and collaborators of the ASCENT COE universities will be leveraged in the initial effort, which focuses on three distinct geographical areas with different characteristics Africa, Latin America and the Caribbean (LAC), and South East Asia. WSU will focus on LAC (Colombia, Dominican Republic, Ecuador), MIT will focus on Africa (Kenya, South Africa), and UH will focus on SE Asia (Indonesia, Vietnam, Thailand). FAA is also actively seeking additional partners to support this work.
- 3.6.4 This project will identify waste and biomass feedstock availability, analysed new pathways to optimize SAF production, and assess infrastructure needs and logistical requirements for a holistic approach to SAF supply chain development. A focus will be on identifying existing industries and infrastructure that could be leveraged for SAF production thus ensuring rapid development. An updated bottom-up assessment of global SAF feedstock potential and key barriers to achieve this potential will also be undertaken.
- 3.6.5 Student training and capacity building is another key feature of this project. A network of PhD students will be developed who work with universities in the regions of interest to extend supply chain analysis techniques and tools from the ASCENT COE and Volpe Centre to different world regions. Workshops and student exchanges and internships will also be pursued with international partners.

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# **APPENDIX**

# INFORMATION ON DOMESTIC SAF POLICIES OF GERMANY, JAPAN AND KENYA

#### Germany

# The Power-to-Liquid (PtL) Roadmap Germany

- Jointly developed by the Federal Government, the German states, the aviation industry, the petroleum industry as well as plant manufacturers and operators for the market ramp-up of sustainable aviation fuel from renewable energy sources
- It summarizes basic measures and the time frame, aiming at aminimum of 200,000tonnes of PtL available for German aviation by 2030



PtL-Roadmap also available as Executive Summary (German/English)

https://ptl-roadmap.de/

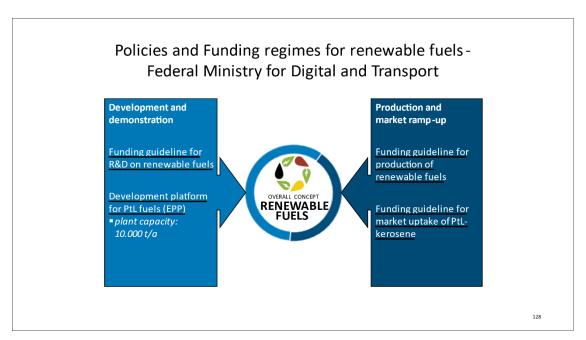
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# Stakeholder Working Group for Sustainable Aviation

- A joint paper (June 2022) of the German government set the basis for convening a "StakeholderWorking Group for Sustainable Aviation" (AKkL). This body includes members from companies, associations, research, civil society and trade unions.
- Fields of action that are of particular importance for the aviation sector on its path to climate neutrality.
  - WG I: the market ramp-up of sustainable aviation fuels SAF
  - WG II: technology in the area of disruptive propulsion systems
  - WG III: efficient air traffic to reduce CO2 and Non-CO2 effects
- National Aviation Conference 2023 on 25 September 2023



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Japan

# **Public-Private Council**



# Public-Private Councils for the promotion of SAF deployment

<Target > Replacing 10% of the fuel consumed by Japanese airlines with SAF by 2030

Accelerating the actions to reach the target, JCAB has established the **Public-Private Council** 

- √To facilitate the domestic SAF production
- √To construct the SAF supply chains including imported SAF

# **Key outcomes**

- ✓ Set future projection of supply & demand
- ✓ Established policy of regulation and Support

#### Members

✓ Private sector. Airlines, airport companies, oil companies, BOAR (Board of Airline Representatives in

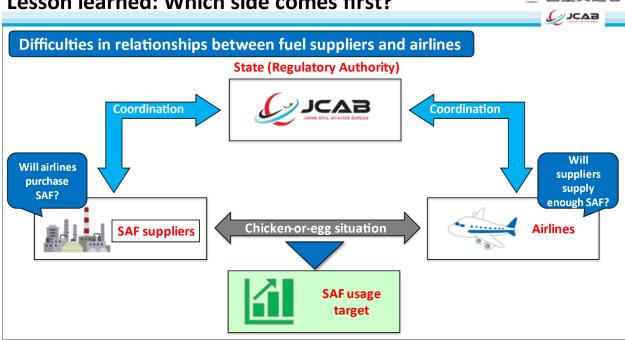
✓ <u>Public sector</u>: METI (Energy), MoE (Environment), MAFF(Agriculture) MLIT (JCAB)



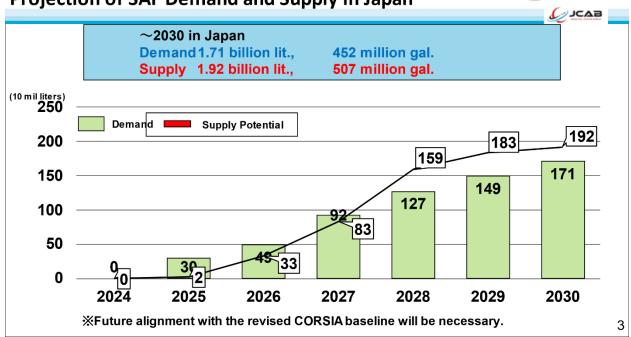
Vice-Minister Nakayama at the 1st Council, April 2022

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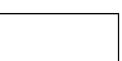
# Lesson learned: Which side comes first?



# **Projection of SAF Demand and Supply in Japan**



# **Regulation and Support for SAF Deployment**



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- Securing SAF manufacturing capacity and feedstock supply chain
- Establishing a stable supply system for SAF at the price of **Objective** global competitiveness
  - Setting **legal targets** for the use and supply of SAF with government support

# **Regulation and Support for SAF Deployment**



# Regulation

For Fuel Supplier \* Under consideration

Supply Target: At least 10% of the aviation fuel consumed

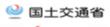
in Japan

For Airline

**Use of SAF: 10% use of SAF for Japanese Airlines** 

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# **Government Support for SAF Deployment**



# Support

\* Under consideration

# Capital Expenditures, CAPEX

Subsidy for initial investments for facilities and feedstock supply chain

# Operating Expenses, OPEX

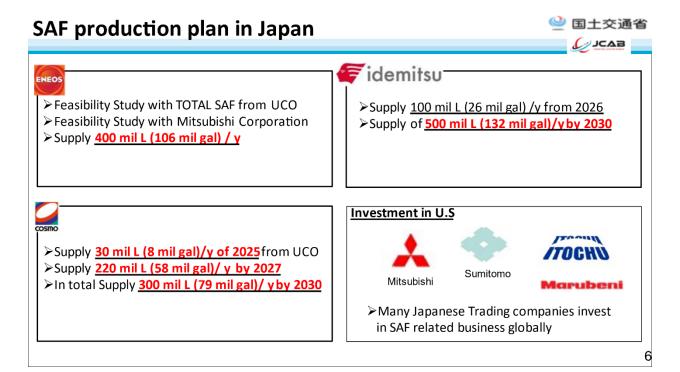
Tax Exemption or Reduction for importing feedstock

# Technology R&D

R&D for SAF production and feedstocks\*

\* Second generation ethanol, algae and waste

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## JCAB's global initiatives 🎐 国土交通省 **ICAO** 2<sup>nd</sup> APAC Ministerial **ACT-SAF Series #4 Conference on Civil Aviation 2023 ICAO** 23 Mar 2023, On-line Scheduled in 2024, Delhi Stocktaking The 21st ASEANJapan STOM Leaders Conference 19 July 2023, Sappor **G7 Transport** Ministers' Meeting 16-18 June 2023, Ise-shima How do we encourage the **3rd ASEAN** "Global South" to commit The SAF Chile Table **Sustainability Forum** 31 May 2023, On-line 17 May 2023, On-line to decarbonization for achieving the LTAG...?

# **Takeaways and What JCAB is looking at**



Coordination of SAF supply and demand through Public-Private Council

Goals for both the supplier and user side on the production and use of SAF

Consideration of various supports to decrease the cost of SAF

Bilateral or multilateral policy coordination to accelerate the global SAF use

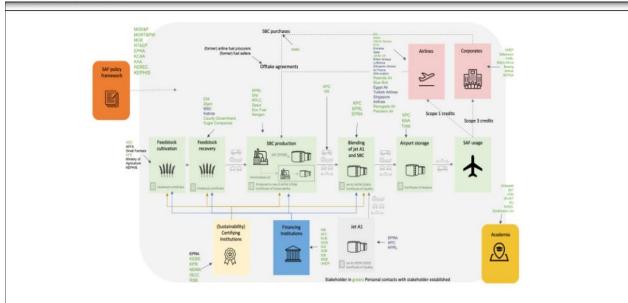
Quantitative target for the lifecycle GHG reduction rate of SAF

# Kenya



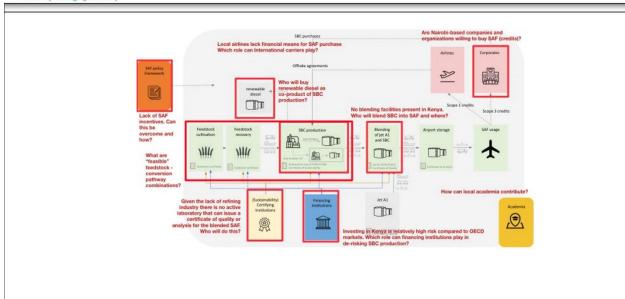


# KENYA SAF STAKEHOLDER MAPPING



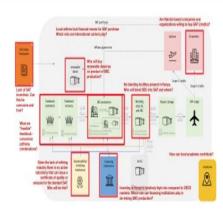


# **KEY SAF CHALLENGES IN KENYA**



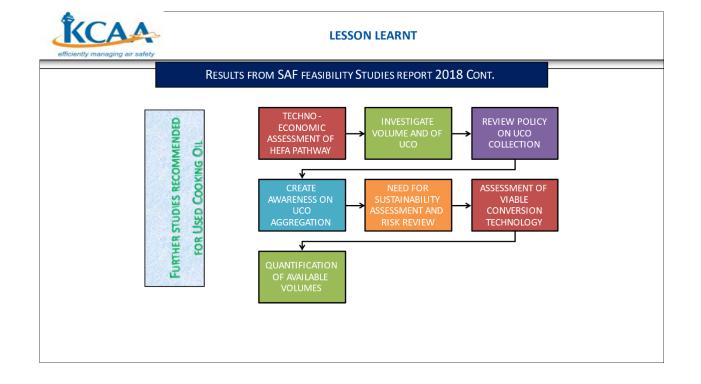


# **KEY SAF CHALLENGES IN KENYA CONT..**



- Plant financing
- •Offtakes (airlines and Corporates)
- how to allocate the green premium
- Fuel testing, certification and blending
- Policies







# **Lesson Learnt**

# Green Premium Cost (allocated to all departing international flights)\_Study results from Hasselt University





# **Lesson Learnt**

Green Premium Cost (only allocated to international flights departing to other continents)





#### **Lesson Learnt**

# **Green Premium Cost Comparison**

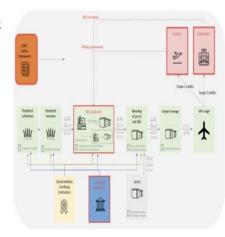


# **Lesson Learnt**

# The importance of de-risking SAF investment in developing countries

"Coalitions" will be needed to drive down risk premiums and distribute the green premiumfor each specific SAF investment case.

- Financing agreements with international development banks
- Offtake agreements from (international) airlines;
- Scope 3 credit purchases by corporates;
- Government commitments(expertise, regulation)
- Training in SAF to Technical Experts
- Many entities are active in building such coalitions at the moment.





# Success



The SAF study recommended that focus be directed to waste-based feedstocks namely, used cooking oil (UCO) in the short to medium term, and municipal solid waste (MSW),

sugarcane field byproducts (cane tops) and water hyacinth in the long term.



Kenya has Agreed to Enter into ICAO ACT-SAF programme to scale up production of SAF



Hosted a workshop on SAF scaling up including Power to Liquid held in Nairobi on 3<sup>rd</sup> August 2022 & 11-12 Sept. 2023 in Collaboration with GIZ PtX Hub



Collaboration with other Partners on SAF production are under discussion.



Implementation of the SAF toolkit recommendatio n that was launched during COP 26 in Glasgow UK.



The Ministry of Energy has done baseline studies on the potential of biofuels production in the country to promote the use of SAF



# **SUCCESS Cont.**

# Main needs identified by the SAF workshop held on 12th September 2023 in Nairobi:



PUBLIC-PRIVATE SAF STEERING GROUP, WITH INTERNATIONAL STAKEHOLDER INVOLVEMENT

SAF ACTION PLAN / ROADMAP ALIGNED WITH THE AVIATION ENVIRONMENTAL ACTION PLAN

MODEL SAF FINANCE CASE THAT ADDRESSES RISK AND GREEN PREMIUM COVERAGE

**DOMESTIC SAF** POLICY TO HELP COVER THE GREEN PREMIUM AND REDUCE RISK PREMIUMS

TECHNICAL ANALYSIS ON THE USABILITY OF THE **OLD REFINERY**AND OF **BLENDING INFRASTRUCTURE** AND **DOMESTICATION**OF (CERTIFICATION) **STANDARDS** 

TARGETED CAPACITY BUILDING AND KNOWLEDGE TRANSFER

CONDUCT STUDY ON **MACROECONOMIC EFFECTS**ON SAF PRODUCTION TO GDP



# **Success Cont...**

Hosted SAF Capacity Training on  $13^{\rm h}$  and  $14^{\rm th}$  September 2023 in Nairobi:



**52 STUDENTS PARTICIPATEDI**N THE SAF TRAINING FROM DIFFERENT GOVERNMENT DEPARTMENTS, AIRLINES, ACADEMIA AND PRIVATE SECTORS

SAF TRAINER FROM KCAA, GIZ, MIT AND HASSELT UNIVERSITY



# OPPORTUNITIES IN THE IMPLEMENTATION OF SAF IN KENYA

large volumes of wastes and residues

Strong government commitmentto renewable energy Social, environmental and economic benefits



# **SAF Development Priority Actions**

# The following are the Keypriority Actions/Collaborations for SAF

#### development in Kenya



Development of National SAF policy



Develop SAF
NationaStrategy
and Roadmap



Review of incentive policy to increase production of SAF



Capital investment to scale up SAF production



Capacity building through technical training to experts and Knowledge transfer.



Support**SAF pilot** project development



Support and collaboratin SAF throughresearch and development.



Creation of stakeholder awareness & Working Groups



Establishment of local Regional and international partnerships to Scale up SAF developments



Establish a National SAF steering Committee

