

**59th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

**PROMOTING THE INTRODUCTION AND PRODUCTION OF
SAF IN THE APAC REGION**

(Presented by Japan)

SUMMARY

This paper introduces measures to promote the introduction and production of SAF in Japan including the establishment of a public-private council, utilization prospects and supply targets, regulations and support measures, and highlights the necessity of the government's role in the immature market stage.

It also introduces ICAO's capacity building program (ACT-SAF) resolved at the 41st ICAO Assembly in 2022 and Finvest Hub agreed at CAAF/3 in 2023, and highlights the importance of actively utilizing these schemes to promote the introduction and production of SAF in developing countries with the cooperation of other countries.

PROMOTING THE INTRODUCTION AND PRODUCTION OF SAF IN THE APAC REGION

1. INTRODUCTION

1.1 In light of the current climate crisis, including the intensifying and increasing frequency of natural disasters due to climate change, global warming countermeasures are an urgent issue in any country and in any sector.

1.2 As carbon neutrality by 2050 becomes the global trend in combating global warming, ICAO has determined global reduction goals for CO₂ emissions and is considering specific measures. ICAO's global reduction goals are: 1) to improve fuel efficiency by 2% annually, and 2) to ensure that total emissions do not increase after 2020. In addition, ICAO has presented a basket of measures to achieve these goals including 1) the introduction of new technologies (new aircraft, etc.), 2) improvement of operation methods, 3) use of sustainable alternative fuels (SAF), and 4) market mechanisms (CORSIA-Carbon Offsetting and Reduction Scheme for International Aviation). At the 41st ICAO Assembly, the Long-Term Aspirational Goal (LTAG) was agreed, aiming for carbon neutrality by 2050.

1.3 In addition, at the ICAO Third Conference on Aviation and Alternative Fuel (CAAF/3) held in November 2023, it was agreed as a global framework to reduce CO₂ emissions by 5% by 2030 through the use of aviation cleaner energies compared to zero cleaner energy use, and therefore, each country must continue to work toward achieving this goal.

1.4 According to an ICAO report, the global demand for SAF is expected to be approximately 88 million kl in 2030 and approximately 650 million kl in 2050. It is assumed that 55% of CO₂ emissions will be reduced by SAF in achieving decarbonization of aviation by 2050*¹. In particular, the greatest demand is expected in the APAC region (accounting for approximately 40% of global demand in 2050)*², making efforts to introduce SAF and promote its production an urgent necessity.

*1) Estimated from ICAO LTAG Report data (2022). Other reduction methods besides SAF include new aircraft technology (21%), operational improvements (11%), and economic methods (13%).

*2) ICAO data (ICAO annual report 2019, ICAO Revenue Passenger-Kilometers Scenarios by route group (2018-2050)).

2. DISCUSSION

2.1 In order to decarbonize the aviation sector, SAF is expected to be the most effective way to reduce CO₂ emissions in the future. However, the current global supply of SAF is low, and production costs and other issues are also a challenge. When it comes to introducing SAF and promoting its production, it is important for the government to demonstrate leadership and move the initiative forward, especially while the market is still immature. The initiatives being undertaken in Japan are introduced below.

2.1.1 Public-Private collaboration: When introducing SAF, it will be important to promote the development and production of internationally competitive domestically produced SAF. In addition, to build a future supply chain, it will be important to foster collaboration between fuel suppliers and airlines. With the aim to accelerate the introduction of SAF, the Public-Private Council for Promoting of Sustainable Aviation Fuel (SAF) Deployment was established as a forum for the public and private sectors to discuss technical and economic issues and their solutions, and to work together to advance the initiative, thereby promoting public-private collaboration.

2.1.2 Government regulation and support: To create and develop a sustainable SAF market,

it is necessary for the supply side to secure sufficient SAF production capacity and feedstock supply chain (including develop-and-import) and to establish a stable supply system for SAF at internationally competitive prices, while on the demand side, it is necessary to create an environment to ensure the stable purchase of SAF. In the immature stage of the market, it is crucial for the government to actively assist in securing the necessary equipment that requires large initial investment, while also gaining air passengers' understanding of additional cost burden associated with the use of SAF. In Japan, as a regulatory measure on the supply side, we are considering to set a target supply amount of SAF equivalent to 10% of aviation fuel consumption by 2030, and on demand side, we have set a target amount of SAF usage (10%) for domestic airlines in 2030 under the basic policy for promotion of decarbonization in aviation sector. As support measures, the government is providing initial investment support for the construction of large-scale SAF production facilities and tax credits in proportion to the amount of SAF produced and sold in Japan.

2.2 Utilization of ICAO schemes: In order to achieve the global reduction goal for CO2 emissions set by ICAO, we believe that further consideration should be given to the use of support measures such as the capacity building program (ACT-SAF) resolved at the 41st ICAO Assembly in 2022, and Finvest Hub agreed upon at CAAF/3 in 2023, based on the concept of No Country Left Behind Initiative.

2.2.1 ACT-SAF: Since the global SAF market is still immature, it is extremely important to share best practices among countries to form and develop a global SAF market. We are convinced that ACT-SAF, ICAO's capacity-building program, will be an extremely effective tool in achieving ICAO's global CO2 emission reduction goal. Currently, more than 150 countries and organizations are registered as ACT-SAF partners.

2.2.2 Finvest Hub: Because SAF production requires large investments, financing is a challenge, particularly in developing countries. To improve access to private investment and financing from financial institutions such as development banks, Finvest Hub, a matching mechanism between aviation decarbonization projects and public funds/private investors, could be used as an effective scheme to complement broader implementation support activities such as the ACT-SAF program.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- a) Encourage governments to take a leadership role in promoting the introduction of SAF at an immature stage of the market.
- b) In order to achieve the global reduction goal for CO2 emissions set by ICAO, we encourage each country to actively utilize schemes such as ICAO's capacity building program (ACT-SAF) resolved at the 41st ICAO Assembly in 2022 and Finvest Hub agreed at CAAF/3 in 2023, in cooperation with other countries, to advance efforts to promote the introduction and production of SAF in the APAC region.

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