

2024 ICAO REGIONAL SEMINAR ON ENVIRONMENT

In collaboration with



APAC Region

7 to 8 , August 2024

Bangkok, Thailand



ICAO

ENVIRONMENT



ACT SAF

CORSIA



Promotion and implementation of SAF in JAPAN

7 August 2024
Carbon Neutrality Promotion Office,
Japan Civil Aviation Bureau

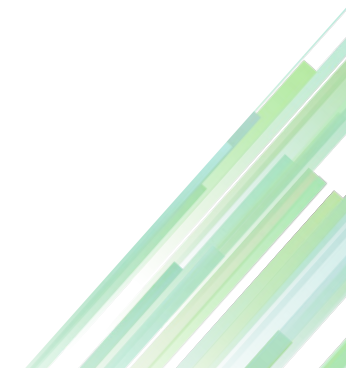




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1. Introduction

2. Decarbonization Policy and State Action Plan

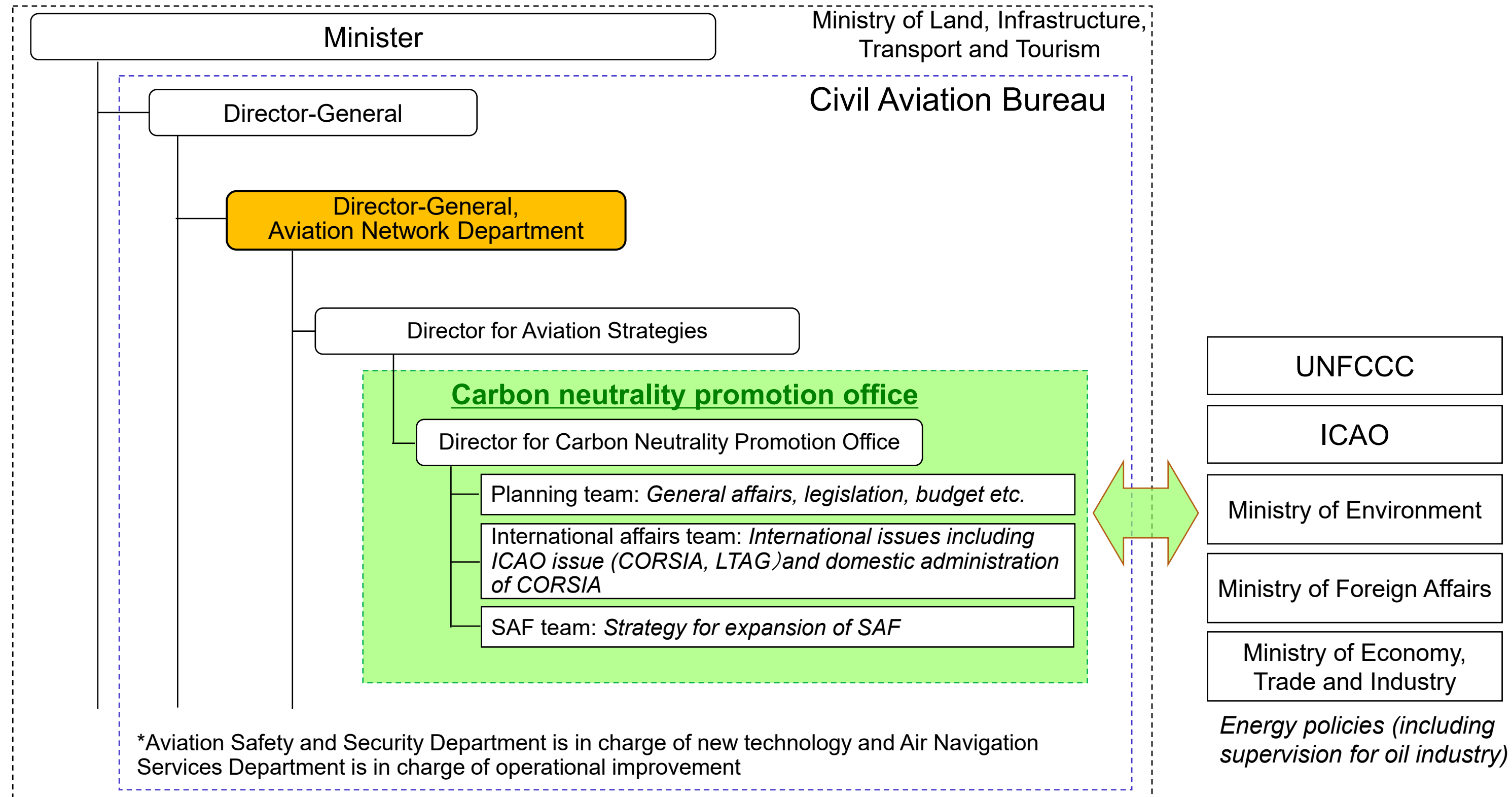
3. Most recent initiatives

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1-1. Organization Structure of JCAB on Sustainability Issues

JCAB established the Carbon Neutrality Promotion Office in April 2022, to strengthen its ability to address aviation sustainability.



1-2. Progress of total international emissions of JAPAN

Total emissions on international flights by Japanese airlines were approximately 12.6 million tonnes in 2023. (approximately 87% of 2019)

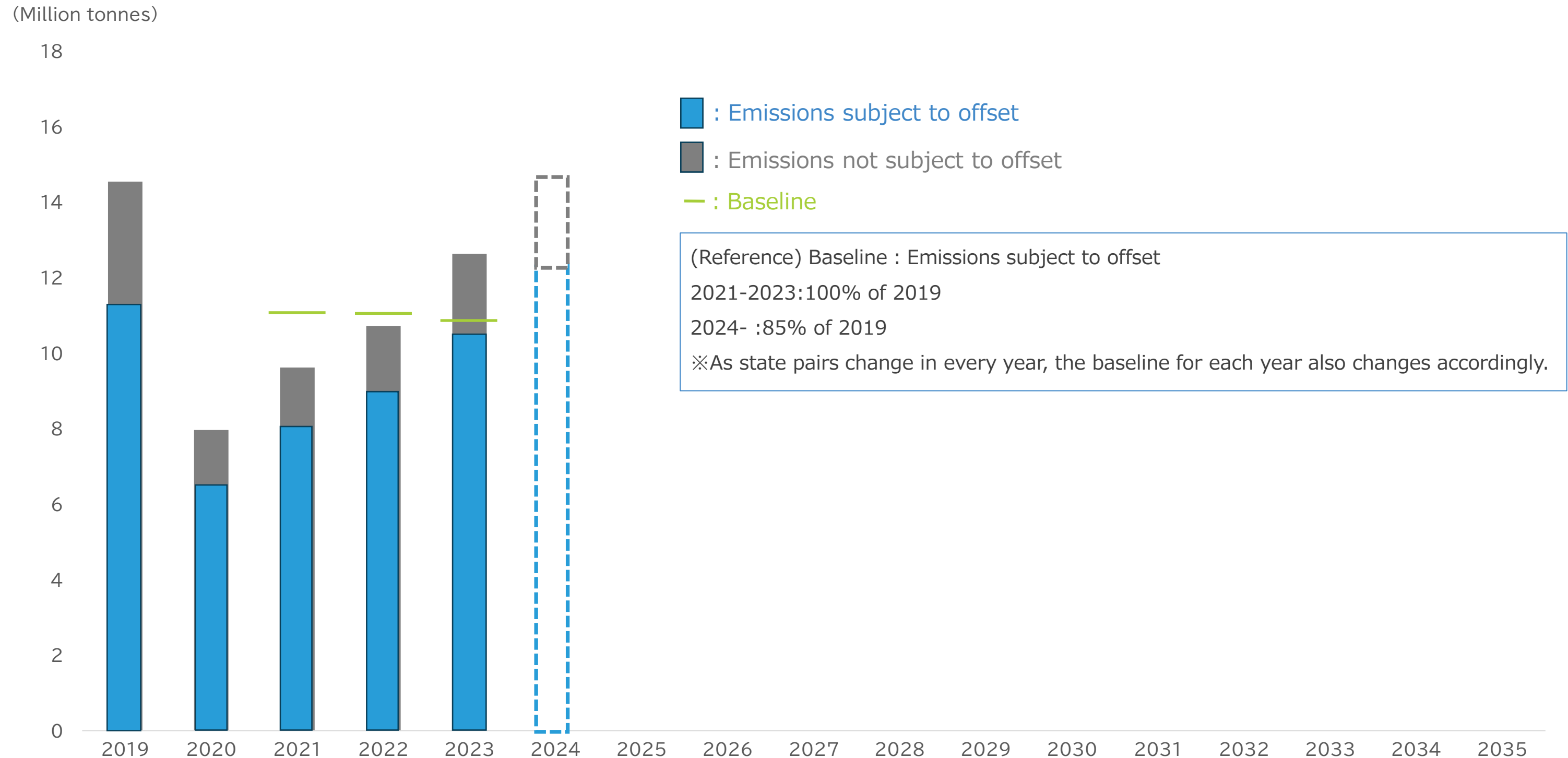




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2-1. JCAB's policy toward decarbonization in aviation sector

As Government

- **Achieve carbon neutrality and a decarbonized society by 2050**
- **Reduce GHG emissions by 46% in FY2030 compared to 2013**

As MLIT

Promote efficient implementation through the environmental policies

As JCAB

Study Group on CO2 Reduction in the Aircraft Operation Sector

- Aircraft new technology
- Flight Improvements
- Sustainable Aviation Fuel (SAF)

Study Group on CO2 Reduction in the Airport Sector

- Reduce CO2 emission from airport facilities and GSE
- Make the airport a renewable energy hub

- ✓ Establish a roadmap for decarbonization
- ✓ Aim to replace 10% of the fuel consumption by Japanese airlines with SAF by 2030

2-2. Public-Private Council for SAF

Public-Private Council for the promotion of SAF

Japan's quantified target : Replace 10% of fuel consumed by Japanese airlines with SAF by 2030



To accelerate actions toward achieving the target, JCAB has established a Public-Private Council.

Purposes

- ✓ Facilitate domestic SAF production
- ✓ Establish SAF supply chain including imported SAF

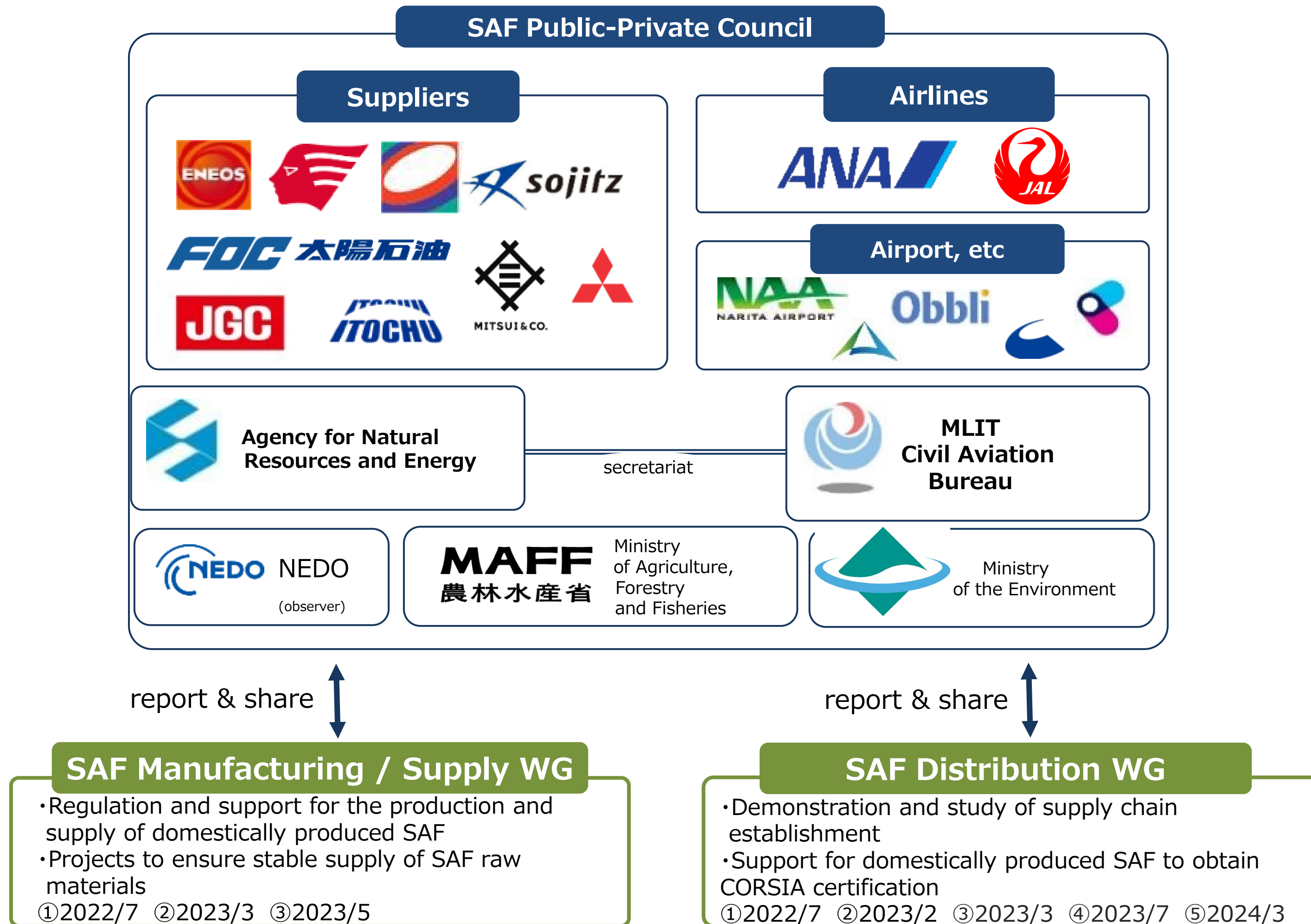
Key outcomes

- ✓ Make future projections of demand & supply
- ✓ Develop regulatory and support policies

Members

- ✓ Private sector: Airlines, airport companies, oil companies, etc.
- ✓ Public sector: METI (Energy), MoE (Environment), MAFF (Agriculture), MLIT (JCAB)

2-3. Structure to promote the introduction of SAF in Japan



2-4. Japan's State Action Plan

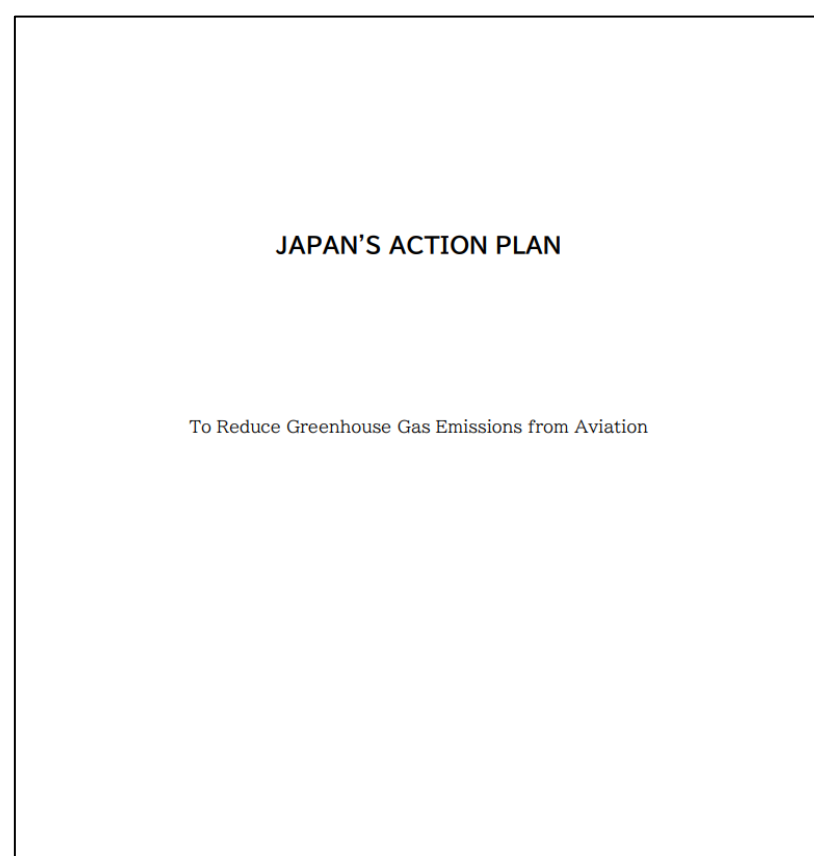
Japan's latest State Action Plan was published in 2021 and comprises the following:

✓ Efforts to date

Development of domestically produced SAF etc.

✓ Future initiatives

(1) Setting SAF usage targets, (2) Cooperation of public-private, (3) Development of domestic SAF, (4) Conversion of domestic SAF to CORSIA eligible fuels, etc.



5.1.3 Sustainable Aviation Fuel (SAF)

○ Efforts to date

SAF stands for Sustainable Aviation Fuel, which includes bio-jet fuel. Compared to conventional fossil-derived jet fuel, SAF has a significant CO2 reduction effect, and its use is essential to achieve the ICAO's global reduction target (CO2 emissions from international aviation sector will not increase its total emissions after 2020).

For this reason, the introduction of SAF is an urgent issue in Japan, and the government, airlines, fuel suppliers, and other organizations are collaborating to consider measures to promote the introduction of SAF.

• Development of domestically produced SAF

As for the development of production technology for SAF in Japan, the New Energy and Industrial Technology Development Organization (NEDO) has been conducting a demonstration of the supply chain from

2-5. Japan's State Action Plan related to SAF

■ Progress from SAP 2021

- ✓ Established the projection of demand and supply of SAF in Japan
- ✓ Support for registration/certification of CORSIA eligible fuel
- ✓ Setting support for fuel suppliers, etc.

■ We strongly recognize the importance of setting goals and plans in SAP and proceeding with the implementation of SAF accordingly.

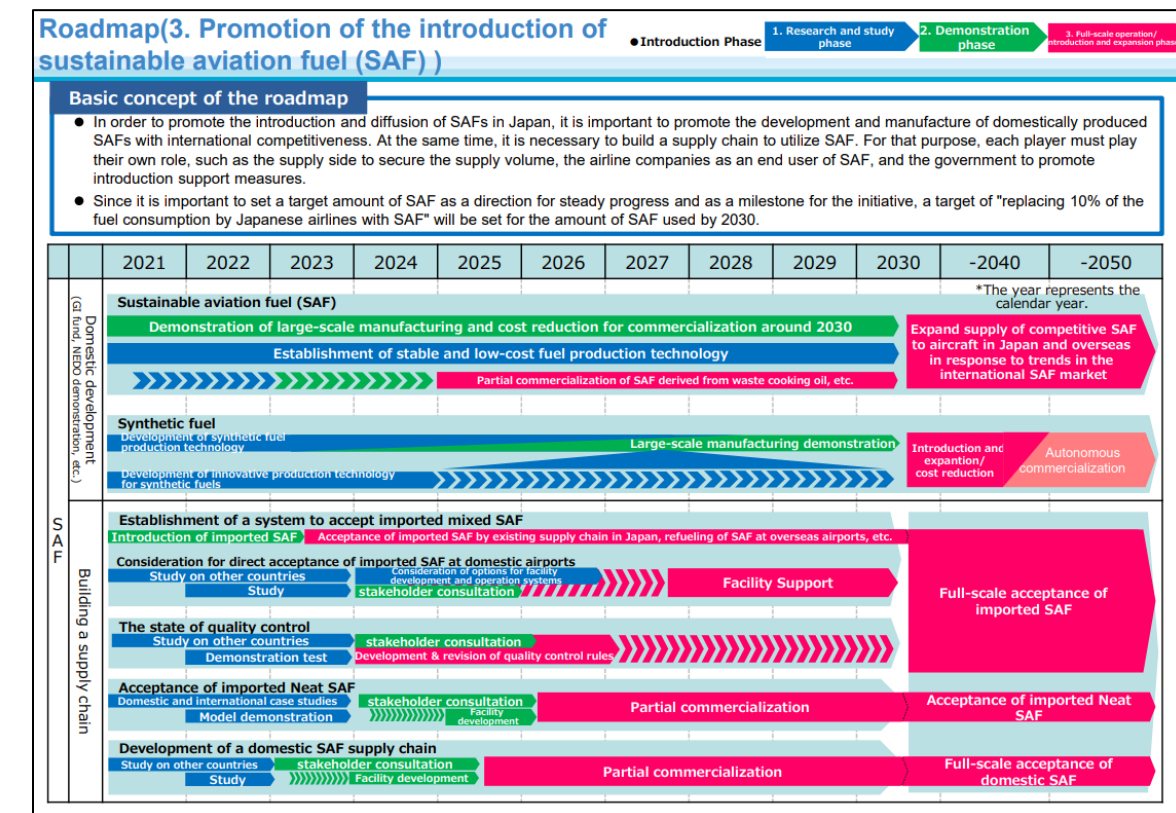
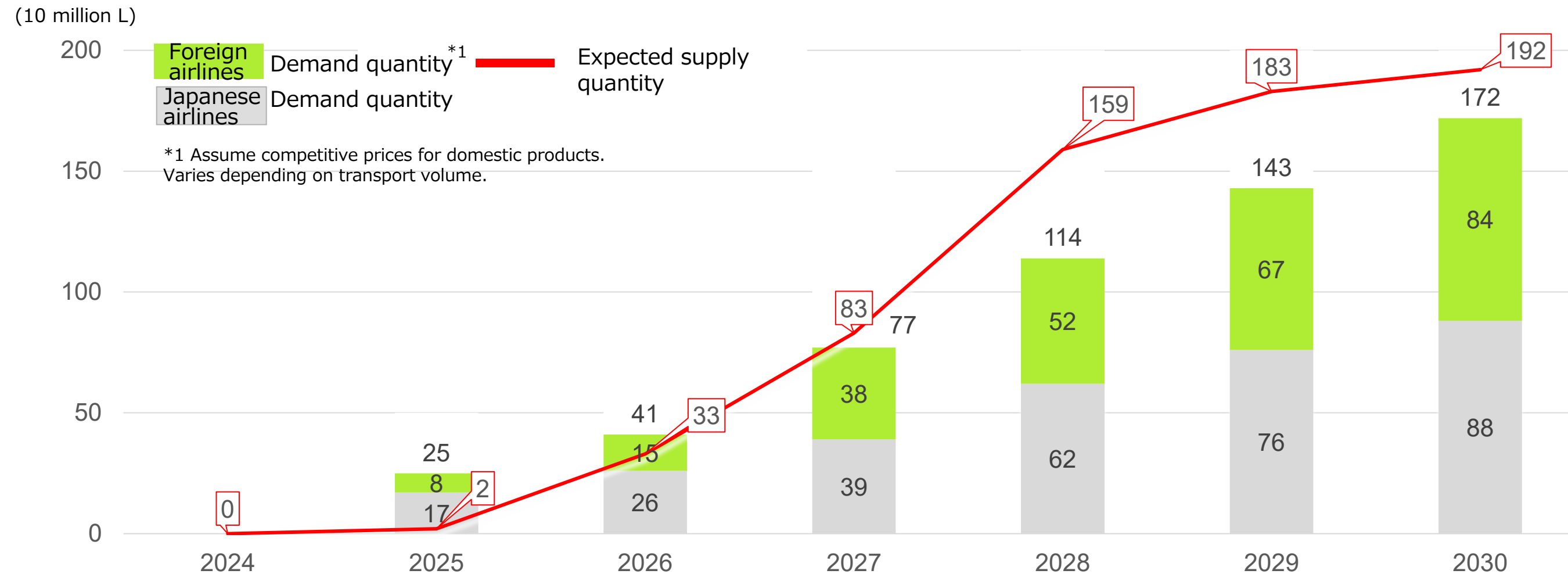


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3-1. Setting regulations and support for fuel suppliers and airlines

Domestic SAF supply and demand forecast



Regulation

(Suppliers) * Under planning

- Establishment of SAF supply targets for 2030 based on current legislation

(Airlines)

- The target amount of SAF use in 2030 (10%) in a decarbonization promotion plan

Support

- Capital investment support for the construction of large-scale SAF production facilities
- Tax credits of SAF produced and sold in Japan (30 yen per liter)

3-2. CORSIA eligible fuel registration/certification support

Purpose

The public and private sectors are working together to have the fuel registered and certified as “CORSIA Eligible Fuel.”

Initiative ① Support for pilot operators

Support the expansion of new SAF raw material*1 registered operators.

*1: Vegetable oil, residue, wood, municipal garbage, etc.

Pilot operator (FY2023)

Idemitsu Kosan	ENEOS	JGC Holdings / Cosmo Oil
Japan Green Power Development	Biomaterial in Tokyo / Sumitomo	
REVO international	Nippon Paper Industries / GEI / Sumisho	Sekisui BR

Initiative ② Participation in ICAO expert meeting(FTG) and addition to list

In FY2023 Japan proposed the registration of new feedstock, which was agreed at an expert meeting(Fuel Task Group) in October 2023 and reflected in March 2024.



“Non-standard Coconuts”

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4-1. Public relations activities to build momentum for SAF

1 “Carbon Neutral Sky” Symposium

Held from FY2022.
We aim to raise awareness of SAF through lectures and panel discussions.



2 Disseminate information via the web “Sora Kabo☆ Portal”

Civil Aviation Bureau's web portal on aviation decarbonization.



3 Disseminate information through video “Sora Kabo☆ Channel”

Civil Aviation Bureau's YouTube channel on aviation decarbonization.



4 Disseminate information through various events and media

Main events

February 2024 Tokyo Big Sight
Lectures at the 18th Renewable Energy World Exhibition & Forum

January 2024
Lectures at Web Forum

Broadcast on major TV/web, etc.

November 2023
• Asahi Shimbun: Podcast “What is SAF” (introducing domestic and international initiatives)

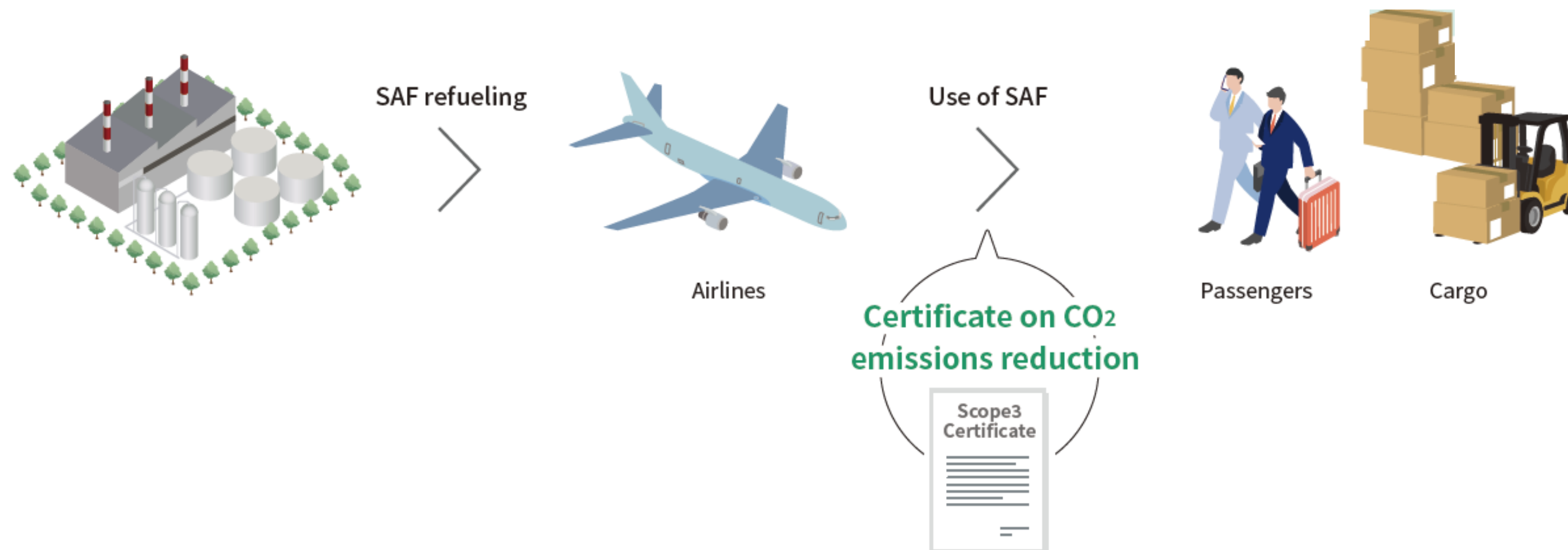
March 2023
• TV Tokyo: TV Tokyo BIZ “Initiatives to promote the introduction of SAF” (TV appearance)

February 2023
• NHK: Close-up Gendai “Flying in the sky with tempura oil!? Chase! The battle for the “Dream fuel” , etc.

4-2. Scope3 in air transportation

Overview

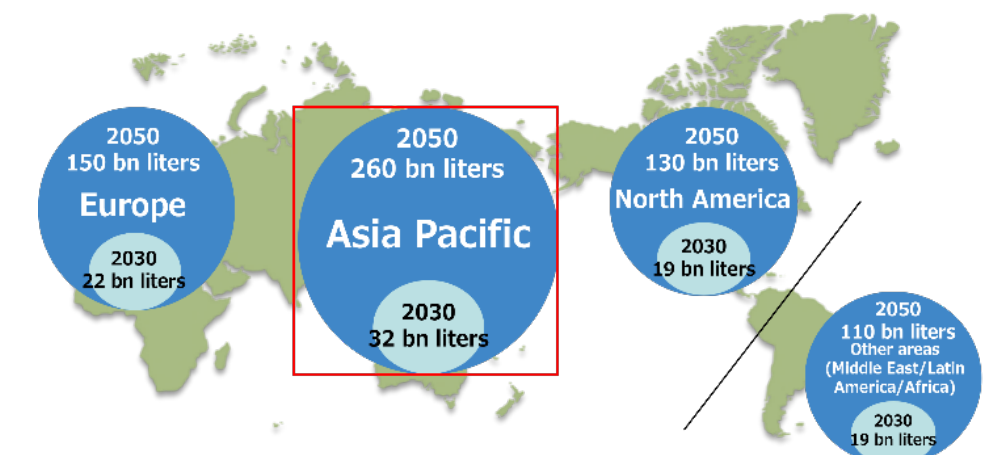
- The GHG Protocol was developed by a private organization and classifies GHG emissions into 3 categories according to the method and entity of emissions.
- The GHG protocol defines [Scope1:Direct GHG emission] [Scope2:Indirect energy emission] [Scope3:other indirect GHG emission].
- Although the GHG Protocol is a voluntary framework, it is practically a global standard.



4-3. SAF feedstock diversification and certification

Back Ground

- SAF is essential to aviation decarbonization and the Asia-Pacific region is expected to have the greatest demand for SAF.



SAF demand forecast

Objective

- Increase knowledge of SAF certification process among authorities and economic operators in ASEAN.



Non-standard Coconuts

Framework for Cooperation

- Develop a “**ASEAN-Japan CEF※** Certification Guidebook” by FY2026. (※ CEF : CORSIA Eligible Fuels)

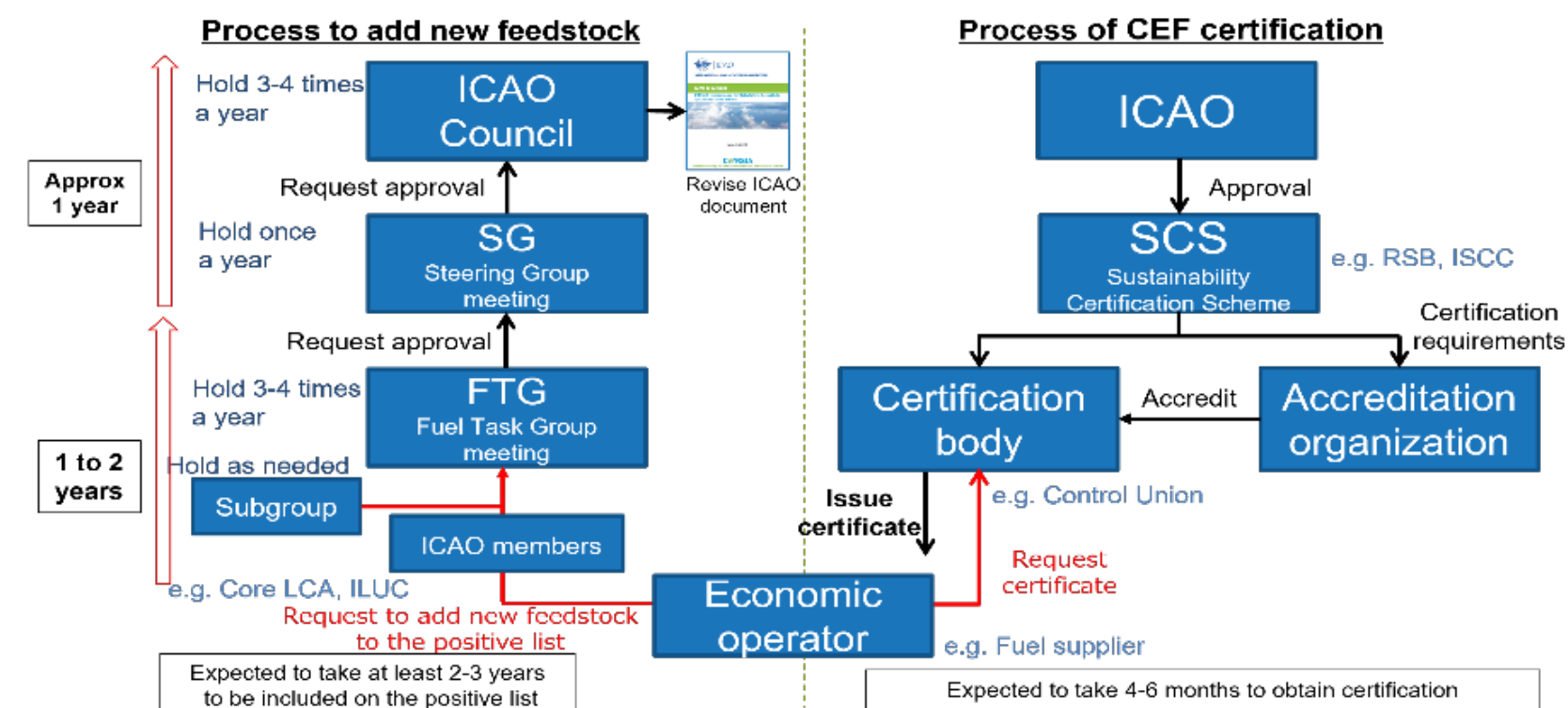




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- JAPAN has made good progress based on the SAP2021.
- In the process of implementing the SAP2021, several important initiatives were identified, which will be added to the next SAP.
- It is essential for governments to show leadership and engage stakeholders to achieve carbon neutrality by 2050.
- It is useful for each state to have a roadmap for GHG emission reductions in order to achieve the government's basic policy and SAP.
- We hope that keywords we have given today will be used a reference in APAC.

Thank You

