

Global Reduction Targets(LTAG)

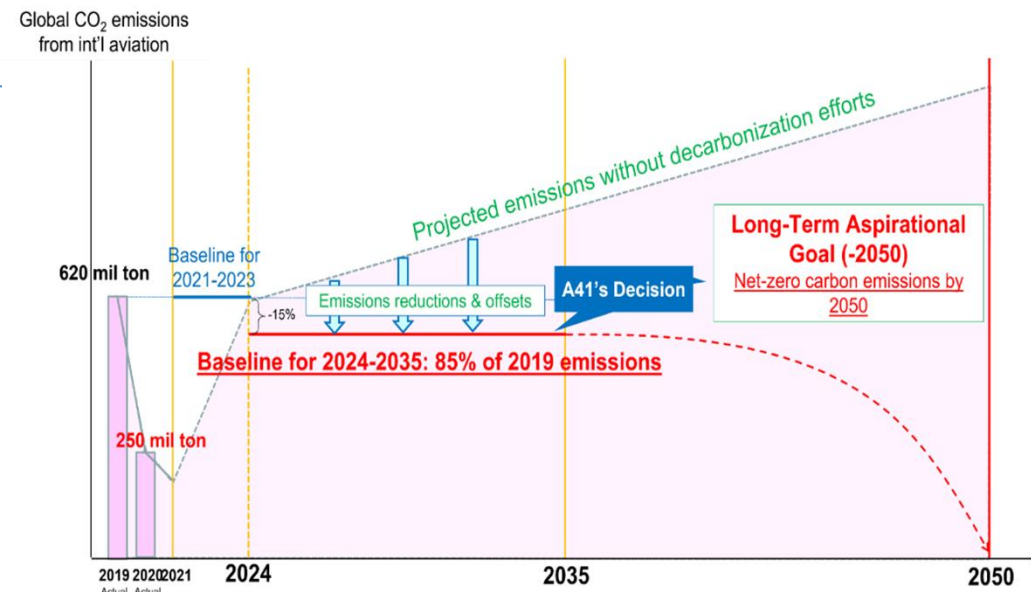
- Carbon Neutral Growth after 2020 (CNG2020)
- Improve fuel efficiency by 2% annually
- Carbon neutrality by 2050 (LTAG)

CORSIA

CORSIA's basket of measures is as follows:

- (1) Introduction of new technology
- (2) Improvement of operation methods
- (3) SAF
- (4) Carbon credits

At the 41st ICAO Assembly, it was adopted to revise the baseline for CORSIA after the first phase to 85% of global emissions in 2019.



ICAO Global Framework for Aviation Cleaner Energy

In November 2023, ICAO Third Conference on Aviation and Alternative Fuel (CAAF/3) agreed on a Global Framework including the quantitative target in 2030.

Main Agreements

① Policy and Planning	✓ <u>The Vision to reduce CO₂ emissions by 5% by 2030</u> through the use of aviation cleaner energies compared to zero cleaner energy use
② Regulatory Framework	<ul style="list-style-type: none"> ✓ Increasing the number of Sustainability Certification Schemes (SCS) ✓ Requirements for the SAF Accounting System
③ Implementation Support	<ul style="list-style-type: none"> ✓ Policy Toolkit ✓ Effective technology transfer to developing countries
④ Financing	✓ <u>ICAO Finvest-Hub</u>



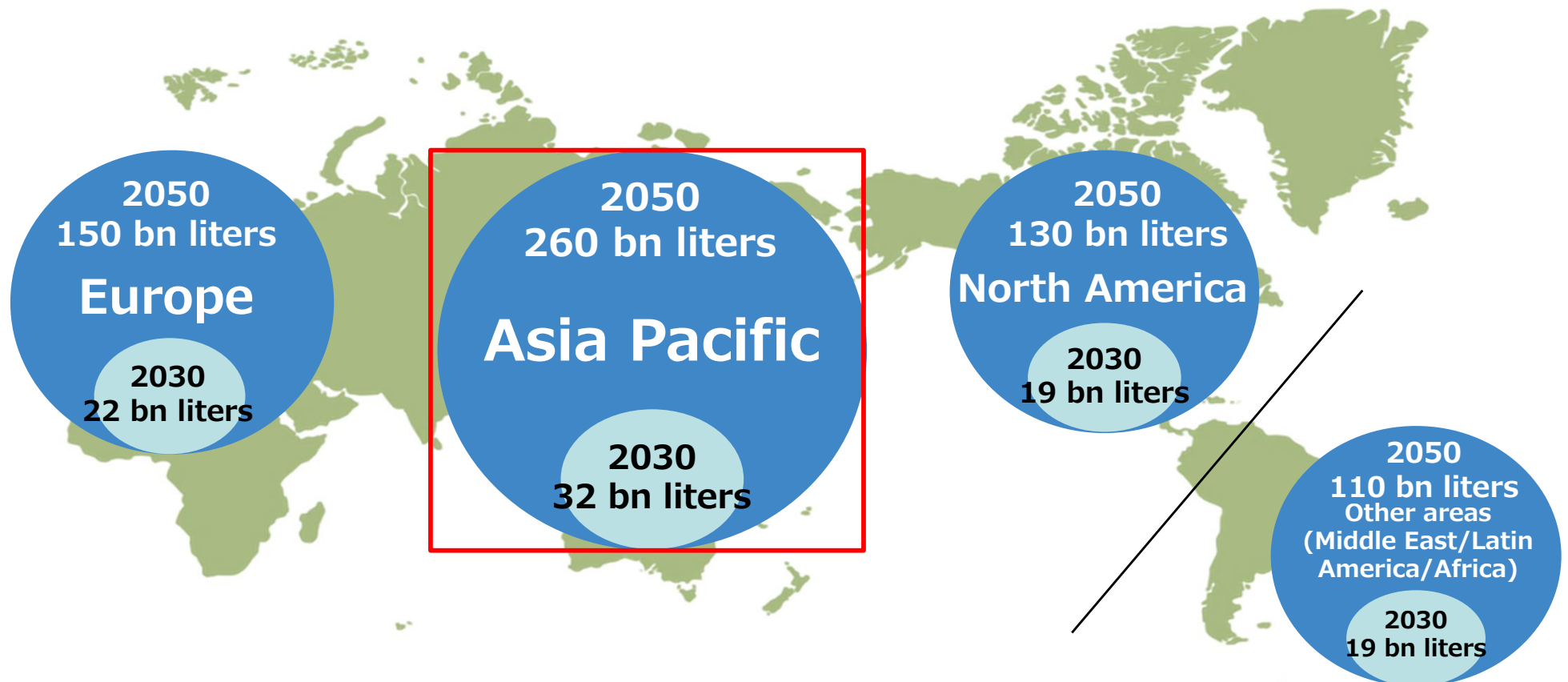
Mr. Onuma, Senior Deputy-Director-General of the Civil Aviation Bureau

- According to the ICAO report, global SAF demand is expected to be
 - about 88 billion liters in 2030, and
 - about 650 billion liters in 2050^{*1}
- It is assumed that SAF will reduce CO2 emissions by 55% when achieving aviation decarbonization in 2050. ^{*1}
- **Asia-Pacific region is expected to have the largest demand (approximately 40% of world demand by 2050).** ^{*2}

^{*1}) Estimated from ICAO LTAG Report data (2022).

Reduction methods other than SAF are new aircraft technology (21%), improved flight operations (11%), and economic methods (13%).

^{*2}) ICAO data (ICAO annual report 2019, ICAO Revenue Passenger-Kilometres Scenarios by route group (2018-2050)) are used for demand in each region.



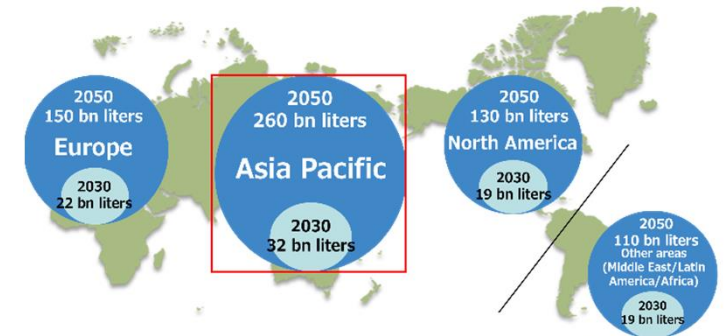
- Economic operator requests a certification body for certification, then the certification body reviews the economic operator and SCS issues CEF ※² certificate.

※ 2 CEF:CORSlA Eligible Fuels



Back Ground

- SAF is essential to aviation decarbonization and the Asia-Pacific region is expected to have the greatest demand for SAF.
- Based on a proposal by the Japan Civil Aviation Bureau (JCAB), ICAO has approved “Non-standard Coconuts” as a SAF feedstock and included in an ICAO document.



SAF demand forecast

Objective

- To diversify SAF feedstock and enhanced knowledge of SAF certification process among authorities and economic operators in ASEAN.



Non-standard Coconuts

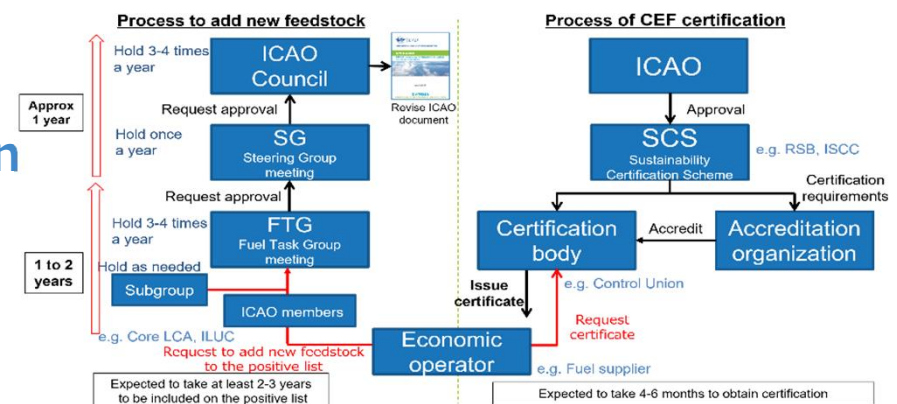
Framework for Cooperation

- Formulating “**ASEAN-Japan CEF* Certification Guidebook**”, which describes how to register new feedstock/pathway with ICAO and obtain CEF certification.

(※ CEF : CORSIA Eligible Fuels)

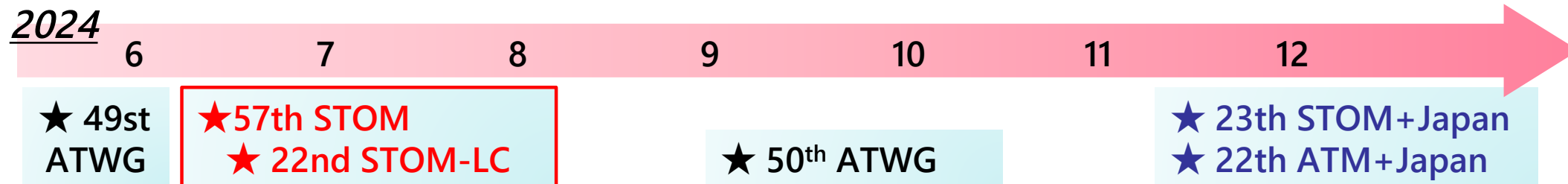
Timeline

- FY2025: ①Start of formulating draft guidebook which contains the findings gained through JCAB activities and customizes for ASEAN.
②Submission of the draft guidebook to ATWG in autumn and get feedback.
- FY2026: ①Submission of the final guidebook to ATWG in spring.

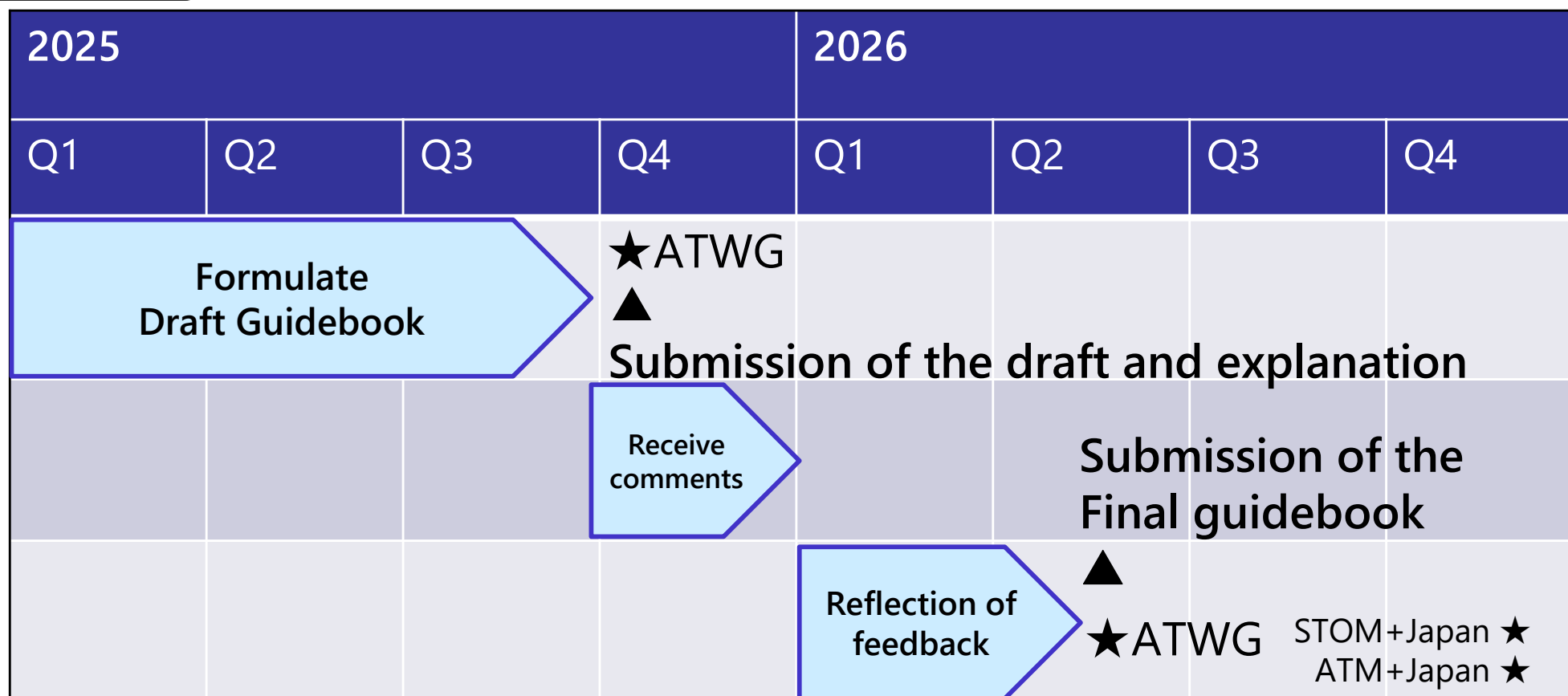


Outline of CEF Registration/Certification Procedures at ICAO

Plan for Endorsement



Timeline



- The Guidebook summarizes the findings gained through the proposal of new feedstock to ICAO and the activities of the Certification Task Group established under the Public Private Council in Japan.

(Draft) Table of Contents

1 Procedure of registration of new feedstock/pathways

- 1-1 Determining the need to register new feedstock/pathway
- 1-2 Request to add new feedstock to the positive list
- 1-3 Request to add new default values
- 1-4 Request to add new credit pathway

2 Obtain CEF certification

- 2-1 Procedures to obtain CEF certification
- 2-2 Calculation and confirmation by economic operator
 - Life Cycle GHG calculation, Sustainability criteria
- 2-3 Application for CEF certification and implementation of audit
 - Select SCS, Calculation and confirmation by economic operator
 - ... etc.,

3 Knowledge for SAF Certification

- Procedure of Life cycle GHG calculation
- Calculation of Actual Life Cycle Emissions values, DLUC values, and ILUC values
- Land use confirmation tool
- ASTM Certification

4 Feedstock option in ASEAN

- Feedstock option and possibility in ASEAN
- ... etc.,