



ICAO BANGKOK | UNITING AVIATION

NO COUNTRY  
LEFT BEHIND



APAC Office Webinar for the 10<sup>th</sup> Anniversary of the ICAO State Action Plan (SAP) Initiative on CO2 Emissions Reduction

# APAC Activities

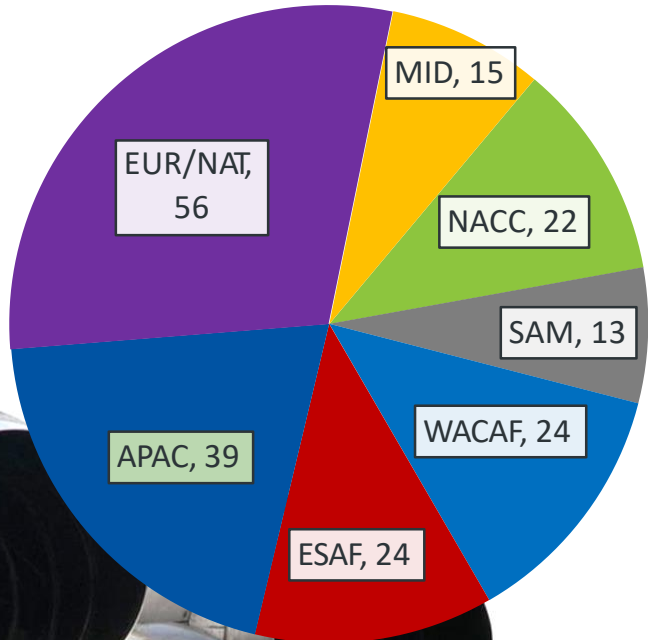
Peter Dunda & Sayuta Senobua

*ICAO APAC Regional Officers*

22 April 2021



## Contracting States to each ICAO Regional Office



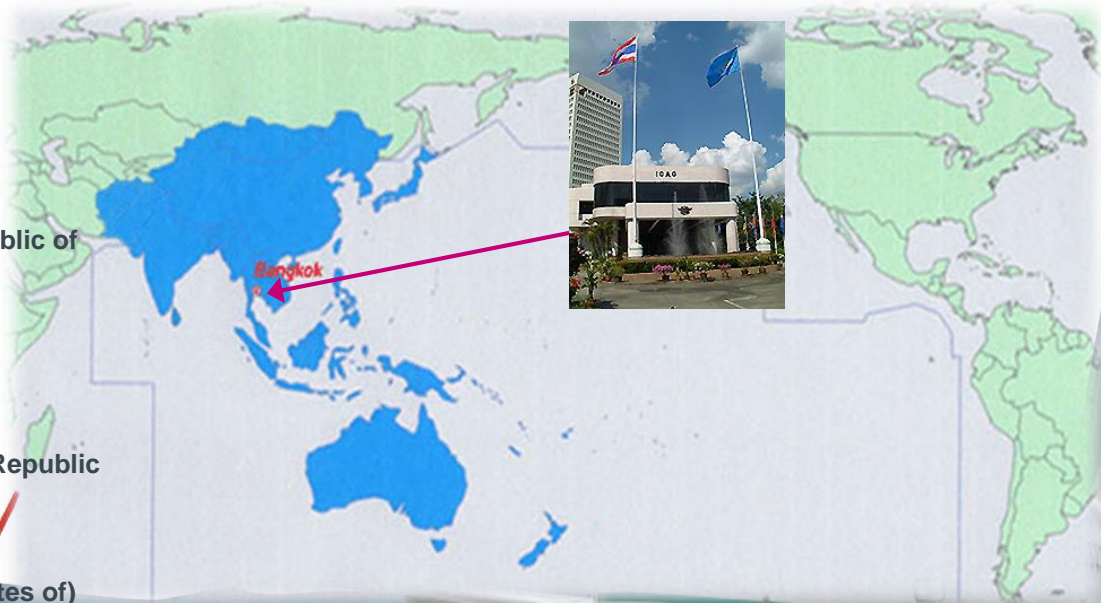
- **APAC** covers 30.87% of the world's air traffic with an annual growth rate of 7%
- **ESAF** covers 1.63% of the world's air traffic with an annual growth rate of 7%
- **EUR/NAT** covers 35.97% of the world's air traffic with an annual growth rate of 6%
- **MID** covers 13.85% of the world's air traffic with an annual growth rate of 5%
- **NACC** covers 14.79% of the world's air traffic with an annual growth rate of 6%
- **SAM** covers 2.85% of the world's air traffic with an annual growth rate of 10%
- **WACAF** covers 0.05% of the world's air traffic with an annual growth rate of -1%



# ICAO Asia and Pacific (APAC) Region

- Afghanistan
- Australia
- Bangladesh
- Bhutan
- Brunei Darussalam
- Cambodia
- China
  - Hong Kong, China
  - Macao, China
- Cook Islands
- Democratic People's Republic of Korea
- Fiji
- India
- Indonesia
- Japan
- Kiribati
- Lao People's Democratic Republic
- Malaysia
- Maldives
- Marshall Islands
- Micronesia (Federated States of)

- Mongolia
- Myanmar
- Nauru
- Nepal
- New Zealand
- Pakistan
- Palau
- Papua New Guinea
- Philippines
- Republic of Korea
- Samoa
- Singapore
- Solomon Islands
- Sri Lanka
- Thailand
- Timor Leste
- Tonga
- Tuvalu
- Vanuatu
- Viet Nam





## ICAO State Action Plan Submissions from APAC Region



AUSTRALIA



INDONESIA



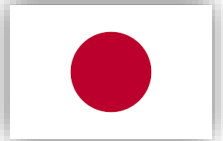
NEW ZEALAND



SINGAPORE



CHINA



JAPAN



PAKISTAN



SRI LANKA



FIJI



MALAYSIA



PHILIPPINES



THAILAND



INDIA



NEPAL

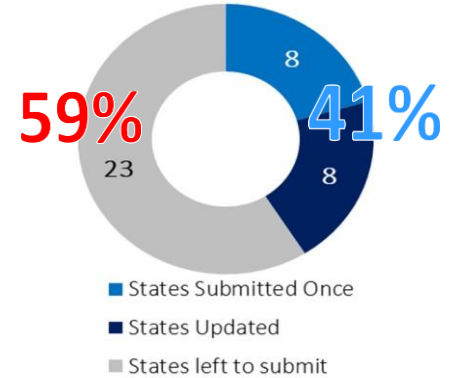


REPUBLIC OF KOREA



VIET NAM

APAC SAP Submissions / Updates



Please contact [actionplan@icao.int](mailto:actionplan@icao.int) if you would like to make your State's Action Plan publically available



## Next State Action Plan Submission



### ICAO ASSEMBLY RESOLUTION A40-18: Consolidated statement of continuing ICAO policies and practices related to environmental protection - **Climate Change**

Par. 10

• Further encourages States to submit voluntary action plans outlining respective policies and actions, and annual reporting on international aviation CO2 emissions to ICAO;

Par. 11

• Invites those States that choose to prepare or update action plans to submit them to ICAO as soon as possible preferably **by the end of June 2021** and once every three years thereafter, ... and information on any specific assistance needs;

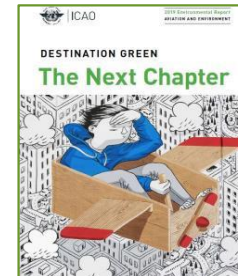
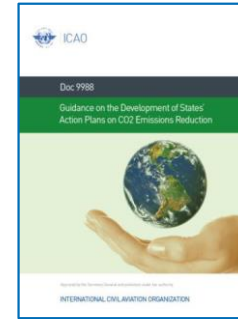
Based on APAC survey from 30 March – 6 April 2021 (APAC RO email per 30 Mar 2021): **12 APAC States will update & 7 States will develop the first SAP**

**Other States are invited to send their response**



## Mitigation measures State Action Plans from APAC Region

- ICAO Doc 9988 provides information on the mitigation Measures.
- Concrete examples of mitigation measures selected by States are available in appendix E
- Additional information on the mitigation measures are also available on the secure APER Website and ICAO ENV Reports



<https://www.icao.int/environmental-protection/Pages/envrep2019.aspx>



## Mitigation Measures used in APAC Region

- Various measures have been taken by APAC States (airline operators, airport operators and ANSPs) to reduce CO2 emissions from civil aviation.
- The measures are classified according to the 4 categories :



**Detail options of mitigation measures provided in ICAO Doc 9988 at Chapter 4 and Appendix A!**



## Mitigation Measures used in APAC Region (Based on 16 submitted SAPs)



Aircraft technology - 12 States



Operational improvement - 16 States



SAF - 9 States



Market-based measures - 12 States



## Examples of Mitigation Measures used within the APAC Region

**AIRCRAFT TECHNOLOGY** – Fleet renewal for the older aircraft, retrofitting and upgrade improvements on existing aircraft, avionics upgrade.



**OPERATIONAL IMPROVEMENTS – Air Traffic Management (ATM)** – RVSM, PBN and CCO/CDO Implementation, Improvements in the ATS Route Network, Improved Infrastructure, ATFM, FUA concept and RNP AR approach and A-CDM



**OPERATIONAL IMPROVEMENTS – Operations** – minimizing weight, minimizing flaps (take-off and landing), minimizing reversers use, single engine taxi and improved ground operations





## Examples of Mitigation Measures used within the APAC Region

**SUSTAINABLE AVIATION FUELS (SAF)** – development of aviation fuels (feasibility study, R & D, and demo flights), adoption of standards/requirements for SAF use.



SUSTAINABLE  
AVIATION FUELS

**MARKET-BASED MEASURES** – voluntary participation in CORSIA and set-up a national regulation to support CORSIA implementation.



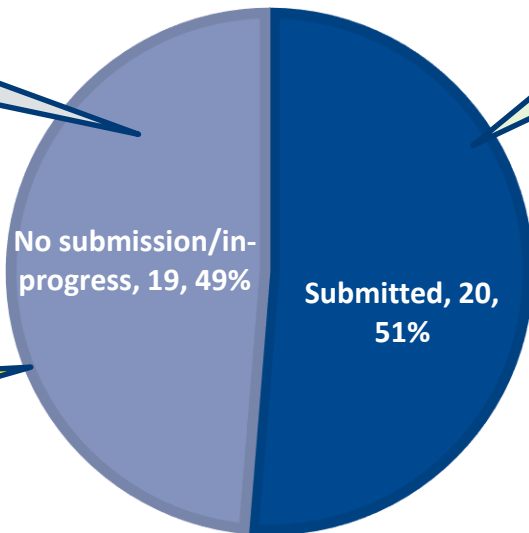


## CORSIA In Numbers (APAC Region)

Progress per 31 March 2021

### 2019 CO2 EMISSIONS REPORT

■ Submitted ■ No submission/in-progress



Please submit as soon as possible before the end of April 2021!

Be prepared for 2020 CO2 emissions report

MRV requirements ?

#### Deadlines apply to 2021:

**1 June 2021 to 31 August 2021:** States to conduct an order of magnitude check of the verified Emissions Reports for 2020, including any filling in of data gaps in case of non-reporting by aeroplane operators.

**31 August 2021:** Using the CCR, States to submit to ICAO aggregate CO<sub>2</sub> emissions per State pair for 2020.

**30 November 2021:** Using the CCR, States to update their list of aeroplane operators that are attributed to them, and the list of verification bodies accredited in them.



## Next Actions for APAC Region

- ✓ **Nomination** of State Action Plan Focal Point and CORSIA Focal Point.
- ✓ **Prepare the initial/updated SAP for submission in 2021.** Make sure the action plans **will be practical and concrete.**
- ✓ Include **innovative measures** in the SAP.
- ✓ Be aware of **CORSIA implementation deadlines in 2021.**
- ✓ **Communicate with APAC RO for questions and support.**

Answering questions and providing support : [actionplan@icao.int](mailto:actionplan@icao.int)

APAC Regional Office:

Mr. Peter Dunda ([pdunda@icao.int](mailto:pdunda@icao.int)) & Mr. Sayuta Senobua ([ssenobua@icao.int](mailto:ssenobua@icao.int))



# ICAO Public Website – Environment Homepage

[www.icao.int/env](http://www.icao.int/env)

[www.icao.int/apac](http://www.icao.int/apac)

ICAO ENVIRONMENT

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## STATE ACTION PLANS

HOW ICAO IS COORDINATING AND PROVIDING ASSISTANCE TO STATES ON EFFECTIVE EMISSIONS REDUCTION PLANNING

ICAO / Environmental Protection

- Home
- Scientific Understanding
- Environmental Trends
- Technology Goals & Standards
- Aircraft Noise
- Local Air Quality
- Climate Change
- State Action Plans
- Capacity Building and Assistance
- Airports
- CAEP
- E-Tools and Models
- Innovation
- Publications
- Statements
- Events
- Contact Us

### Environmental Protection

- CORSIA
- Sustainable aviation fuels
- Tools
- State action plans
- CAEP

ICAO serves as a multilateral platform for cooperation on international aviation environmental protection. Over the years, the national governments who participate together under the Chicago Convention, also commonly referred to as 'ICAO Member States', have agreed to concentrate their aviation environmental collaboration on three core areas:

- Climate change and aviation emissions
- Aircraft noise
- Local air quality

Countries are pursuing these objectives through ICAO primarily via their development of new global aviation standards. They have also agreed to aspirational goals for international aviation, and have prioritized ICAO's Environmental Protection resources on:

- Airframe, propulsion, and other aeronautical and technological innovations
- Optimizing flight procedures to reduce fuel burn
- Increasing the production and deployment of sustainable aviation fuels and clean energy
- Implementing the Carbon Offsetting Reduction Scheme for International Aviation (CORSIA).



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Cairo

Eastern and  
Southern African  
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THANK YOU