

**60th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

**TAKING A COMPREHENSIVE APPROACH TO CAPACITY
BUILDING FOR AVIATION SUSTAINABILITY**

(Presented by Singapore, co-sponsored by Fiji and Papua New Guinea)

SUMMARY

The Asia-Pacific region stands at a crucial intersection of growing air transport demand and increasing urgency to reduce its climate impact. Sustainable transformation cannot be a “one-size-fits-all” solution; policy mechanisms must account for the region’s vast geographical, developmental, financial, and technological diversity. Capacity building is a key enabler for delivering ICAO’s Long-term Aspirational Goal of net-zero carbon emissions by 2050 while honouring both developmental priorities and policy space for each State. This paper sets out a comprehensive approach to capacity building for sustainable aviation across the Asia Pacific, and highlights the role of the Asia Pacific Sustainable Aviation Centre in driving the approach across the region.

TAKING A COMPREHENSIVE APPROACH TO CAPACITY BUILDING FOR AVIATION SUSTAINABILITY

1. INTRODUCTION

1.1 The Asia-Pacific region is home to nearly 60% of the world's population and stands as the largest and most dynamic aviation market, accounting for more than a third of global air travel. This trajectory is expected to continue due to expanding economies, a growing middle class, and a reliance on air transport as the most viable means of connectivity across its vast and non-contiguous geographies.

1.2 Sustainability is existential for aviation. ICAO's Long-term Aspirational Goal (LTAG) sets a clear policy direction toward net-zero emissions by 2050. At the same time, for many States in the region, air transport is essential for their social and economic development – reflecting limited alternative options, making policy responses more complex.

2. DISCUSSION

ASIA PACIFIC'S SUSTAINABILITY CHALLENGES

2.1 The key policy challenge for the region is to grow its aviation industry in a sustainable manner while retaining flexibility for each State to account for its own unique circumstances and priorities. Policy flexibility must reflect significant differences in feedstock availability, technology access, financial resources, policy regimes, and operational readiness across the region.

2.2 An effective approach for aviation sustainability in the Asia-Pacific region must achieve developmental and sustainability goals, honouring both climate responsibilities and growing travel demand. It should provide policy options for adoption and implementation at the national level and facilitate collaboration among governments, industry, and academia. Importantly, it should enable capacity-building initiatives to enable States to strengthen their own institutions and capabilities to contribute toward their climate goals.

CAPACITY BUILDING FOR THE ASIA-PACIFIC REGION

2.3 Capacity building is a critical enabler for the Asia-Pacific region to achieve the LTAG in a realistic and equitable way. This process must begin now. As the region varies in its capabilities, policy priorities, and readiness, capacity-building needs will differ across States. Each State must take the time to identify its own priorities – determining what is most needed, and in what order – and then collaborate with partners and stakeholders to collectively take the next step forward in strengthening its capacity for sustainable aviation.

2.4 Possible Focus Areas for Capacity Building

2.4.1 Developing expertise in **cleaner aviation fuels** is a key capacity-building priority given their potential to significantly reduce aviation's carbon footprint and generate new economic opportunities. Policy makers must be able to conduct life-cycle assessments and understand land use change methodologies to design incentive frameworks that enable the mobilisation of sustainable feedstock to support sustainable aviation fuel production in their States. Furthermore, policy makers will need support in implementing robust **carbon accounting** mechanisms for the transparent and consistent validation of transactions and claims involving sustainable aviation fuels and their environmental benefits. Finally, policy makers must also understand how to design **market-activation and green financing** instruments, to attract new capital and investors help drive the green transformation across their respective jurisdictions.

2.5 Possible Capacity-Building Programmes

2.5.1 A range of capacity-building programmes can be considered, combining both technical assistance and training, to support States in developing their sustainable aviation strategy. Technical

assistance includes providing tailored advice that helps States adapt existing policy blueprints to fit their unique national contexts. Additionally, expert consultancy services can be offered to help developing States initiate and nurture their SAF ecosystems effectively.

2.5.2 Complementing this, targeted training courses can be designed to build expertise among regulators and policy makers. Programmes should be customised to different levels, from new policy makers, middle management to Directors-General of Civil Aviation, to provide participants at various levels with the knowledge and skills necessary to drive sustainability efforts within their organisations and States.

ROLE OF ASIA PACIFIC SUSTAINABLE AVIATION CENTRE

2.6 The Asia Pacific Sustainable Aviation Centre (APSAC) was established to support Asia-Pacific States build the capabilities needed to advance sustainable aviation through policy research, collaboration, and capacity building. As a collaborative platform, APSAC brings together stakeholders to pool expertise and resources, engage with Asia-Pacific States, and support their progress toward the LTAG by offering tailored options that align with each State's unique circumstances.

2.7 Building on this regional mission, APSAC's policy research targets critical areas such as cleaner aviation fuels, carbon accounting, carbon market development, and green financing. Equally important is APSAC's commitment to capacity building, which it advances through tailored technical assistance, specialized training, and fostering a common understanding of essential concepts and terminology in aviation decarbonization. This holistic approach strengthens collaboration among technical experts, policymakers, and community stakeholders across the region. These efforts would support ICAO ACT-SAF and ACT-LTAG by strengthening States' ability to implement their initiatives and fostering greater regional alignment.

2.8 APSAC is supported by a strong team of industry stakeholders, with its Advisory Council comprising partners from the aviation, energy, and green financing sectors. The Chief Executive Officer is an industry veteran with over 30 years of experience in the aviation industry, including Singapore Airlines and IATA. His expertise and extensive network enable APSAC to be a key player for advancing sustainable aviation policy and practice in the region.

APSAC'S UPCOMING CAPACITY-BUILDING INITIATIVES

2.9 As a central component of its regional support strategy, APSAC will be launching a flagship capacity-building programme titled "Growing Aviation Sustainably". The programme will build foundational knowledge and support the alignment of national efforts with ICAO's LTAG. Designed for civil aviation authorities, airlines, and broader aviation stakeholders, the programme provides a strategic and systems-level understanding of aviation's environmental impact within the global climate framework. It also introduces critical decarbonization pathways across the airport, airline, and air traffic management domains.

2.10 APSAC also plans to conduct **State Engagement Workshops** tailored to the national contexts of Asia-Pacific States. These workshops aim to promote whole-of-country engagement on sustainable aviation policy from the aviation, public and private sectors, and are envisioned as collaborative efforts co-hosted with international partners. By integrating selected content from the "Growing Aviation Sustainably" programme and incorporating dedicated sessions that encourages cross-agency and cross sectoral dialogue, the workshops will facilitate inter-agency coordination and policy alignment.

2.11 Building on the collaborative model outlined above, APSAC calls for active participation from States to ensure the success and relevance of these capacity-building initiatives. States are encouraged to contribute in several ways: by nominating qualified expert speakers for course topics, providing regionally contextualised content and case studies to enhance course applicability, and supporting outreach and visibility through their networks. In line with APSAC's long-term vision,

States are also invited to co-develop future training offerings, contribute to curriculum design, and support participant sponsorship. Through these concrete actions, States will play a pivotal role in fostering regional ownership for capacity building.

CONCLUSION

2.12 The Asia-Pacific region's unique blend of strong economic growth, growing connectivity needs, and policy diversity makes it a critical and complex arena for advancing sustainable aviation. Through building capability and facilitating collaboration, APSAC can empower States to make meaningful progress while honouring their developmental priorities. This approach will enable the region to grow its connectivity responsibly, strengthening policy expertise and implementation capacity for a sustainable future.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- a) Discuss how Asia-Pacific States can support the growth of aviation while achieving sustainability goals;
- b) Discuss the needs for capacity building across Asia-Pacific States and areas that Asia Pacific should focus on; and
- c) Discuss how Asia Pacific can initiate these capacity-building efforts to support States and how the Asia Pacific Sustainable Aviation Centre can help.

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