

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

*Sendai, Japan
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AGENDA ITEM 1: THEME TOPIC

**THE SUSTAINABLE SKIES OF THE ASIA-PACIFIC REGION: TOWARDS
INCREASED ECONOMIC PROSPERITY AND SOCIAL WELL-BEING BY
AIR TRANSPORT OF PEOPLE AND GOODS IN THE REGION**

(Presented by ICAO)

SUMMARY

The Asia-Pacific region's air transportation sector is rapidly expanding, presenting significant opportunities for economic growth and social well-being. This paper emphasizes the importance of adopting sustainable aviation practices to ensure environmentally responsible development. Key strategies include the use of fuel-efficient technologies, the optimization of flight routes, and sustainable aviation fuels. Collaboration among governments, airlines, and stakeholders is essential for implementing these practices. The Conference is invited to endorse these strategies and encourage regional cooperation in developing policies that support sustainable air transportation, thereby enhancing economic prosperity and social well-being across the region.

THE SUSTAINABLE SKIES OF THE ASIA-PACIFIC REGION: TOWARDS INCREASED ECONOMIC PROSPERITY AND SOCIAL WELL-BEING BY AIR TRANSPORT

1. INTRODUCTION

1.1 The Asia-Pacific region is one of the fastest-growing regions in the world in terms of air traffic. This growth presents both opportunities and challenges. The region is home to the largest population, approximately 60% of world population, and is full of diversity in various respects.

1.2 Sustainable air transportation is crucial for enhancing economic prosperity and social well-being. This paper explores the potential of sustainable aviation practices to drive economic growth and improve the quality of life in the region.

2. DISCUSSION

2.1 The Asia-Pacific region has 5 landlocked countries and more than 15 island states. For these landlocked and island states air transport is the vital mode of connectivity. In addition, these countries also depend on the travel and tourism industry that contribute to as much as 40% of the national GDP.

2.2 Referring to the World of Air Transport in 2023, the APAC current air transport volume accounts for 32%, in addition, IATA noted APAC traffic in 2024 is 35% of the global air traffic while it is estimated to reach approximately 50% of the global traffic. A forecast indicates that by 2043 around 19,500 new aircraft are required to meet the current demand of APAC. This forecast brings ample opportunities along with several challenges.

2.3 As per ICAO forecast on ICAO Doc 9956, by 2043, the industry will require 670,000 additional pilots, 1,085,000 cabin crew, 698,000 maintenance personnel, and 137,000 air traffic controllers to sustain safe and efficient operations. As of today's situation, many countries in the region cannot produce these many aviation professionals unless we start to prepare these workforces from now.

2.4 The Asia-Pacific aviation sector faces a dual challenge: a forecasted mass retirement of the current workforce within the next decade and a rapidly rising demand for air travel. Without proactive measures to offset this retirement through surplus workforce production, the region risks losing the economic benefits aviation offers. Currently, there is a shortage of trainers, training organizations, and facilities to produce adequately qualified aviation professionals, a process that takes years. Compounding this issue is the competition for young talent from other sectors such as IT, AI, and finance. To address this, the aviation sector is leveraging the Next Generation of Aviation Professionals (NGAP) program to attract new entrants.

2.5 According to ICAO forecasts, by 2037 the APAC region will require approximately 295,000 commercial pilots, 69,000 air traffic controllers, 355,000 maintenance technicians, and 485,000 cabin crew to safely and efficiently operate the aviation ecosystem. Meeting this demand will also necessitate significant expansion and modernization of existing airport and air traffic management infrastructure.

2.6 The Asia-Pacific region's air transportation sector is pivotal for economic development. It facilitates trade, tourism, and connectivity, contributing significantly to GDP. The air transport sector contributed \$890 to APAC GDP in 2023. The region is witnessing significant growth annually. However, this growth must be managed sustainably to mitigate environmental impacts. Key strategies include adopting fuel-efficient technologies, optimizing flight routes, and investing in sustainable aviation fuels. Collaboration among governments, airlines, and stakeholders is essential to achieve these goals. Additionally, improving infrastructure and regulatory frameworks will support sustainable growth.

2.7 Based on ICAO Air Transport report 2023, air travel in the Asia Pacific region, remains a significant component of global aviation, accounting for 32.2% of the total. This comes in the context of a robust worldwide recovery in air travel in 2023, where the total number of passengers on scheduled

services surged to 4.3 billion, a 32.4% increase from the previous year. Similarly, the number of departures globally saw an 18.7% rise, reaching 35.3 million. While the overall global figures indicate a strong rebound in the aviation sector, Asia Pacific's region performance, thought influenced by unique regional dynamics such uneven recovery rates and infrastructure challenges, still reflects its strategic importance in the global aviation landscape. Further analysis is needed to understand the factors affecting traffic share and to guide future planning and investment.

2.8 Overall, taking into account the impact of the sector's supply chain, wages and tourism made possible by air travel, aviation supported 42 million direct jobs and contributed US\$ 890 billion to the region's GDP in 2023, a figure expected to grow by 5.1 per cent annually over the next two decades. Direct employment is forecast to grow by 1.7 per cent annually (4.3 million to 6.1 million) between 2023 and 2043. By 2043, air transport and tourism combined will support 62 million jobs, a 47.1 per cent increase over 2023, and contribute US\$ 2.3 trillion to GDP, a 157 per cent increase over the same period.

2.9 From the International Civil Aviation Organization's (ICAO) perspective, the "Sustainable Skies of the Asia-Pacific Region" initiative is crucial, aiming for increased economic prosperity and social well-being through the air transportation of people and goods. This aligns with ICAO's broader goals of fostering a coherent and harmonized global regulatory framework, resolving infrastructure and airspace capacity constraints, and promoting safe, secure, efficient, economically viable, and environmentally responsible air transport. The organization actively collaborates with Member States to achieve these objectives, recognizing air connectivity as a vital catalyst for sustainable development across the diverse Asia Pacific landscape.

2.10 In response to the APAC Regional office survey on training needs of the region we got response from 35 states and prepared a detailed analysis report. Based on the outcome of the survey the priorities have identified for the regulators and industry as well, especially the frontline staff. Based on the outcome of the survey, the top three areas for priority for the development of competent regulatory staff are identified as Flights Operations (51%), Air Navigation Services (49%) and Personnel Licensing and Training (40%) in descending order. Similarly, the survey has also revealed that the region should focus on the training of commercial pilots (68%), aircraft maintenance technicians (66%) and air traffic controllers (57%).

2.11 An implementation roadmap to address the above needs of the region has been developed in immediate terms of 3 years. The regional office, in collaboration with regional training cooperation framework (RTCF) working group, has a plan to develop a self-sustaining training system in the region long-term plan with combination of train the trainer initiative, collaboration with the training organizations, and alignment of efforts of partners for the development of competent aviation workforce in the region. The interim training plan will be completed by 2028 while activities for long-term plan will also run in parallel.

2.12 Environmental sustainability of the global aviation system is a core aspiration of ICAO's Strategic Plan 2026–2050. ICAO's environmental protection goals include achieving net-zero carbon emissions by 2050 through its Long-Term Global Aspirational Goal (LTAG), as well as mitigating aircraft noise and emissions. Key initiatives supporting this ambition include CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation), the promotion of Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF), and other aviation cleaner energies. ICAO also encourages States to develop and implement voluntary State Action Plans to reduce aviation emissions, fostering regional collaboration and sustainable growth.

2.13 To achieve ICAO's environmental aspirations, States are encouraged to develop and regularly update State Action Plans that outline national strategies for reducing CO₂ emissions from international aviation. These plans should include baseline emissions assessments and identify mitigation measures from ICAO's "basket of measures," such as operational improvements, advanced aircraft technologies, SAF, LCAF, and other aviation cleaner energies, and market-based mechanisms like CORSIA. States are also urged to quantify expected emissions reductions, designate national focal points, and identify capacity-building needs, all of which contribute to coordinated global progress toward ICAO's net-zero emissions goal by 2050.

2.14 Connected Transport System is another aspiration of ICAO strategic plan 2026-2050 that aims to serve as an integral part of a thriving, connected, accessible, inclusive, and affordable air transport system across the globe thereby bringing economic prosperity to the nations and regions.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- a) Encourage States/Administrations to collaborate with regional stakeholders in developing and implementing policies that support a sustainable air transport ecosystem, in response to the projected growth of air transport;
- b) Urge States/Administrations and international organizations to support ICAO APAC Regional Office in establishing a regional training program to develop pool of trainers;
- c) Encourage APAC States to develop, update, and implement voluntary State Action Plans incorporating ICAO's basket of measures—including SAF, LCAF, and other aviation cleaner energies, and CORSIA—to support the global goal of net-zero carbon emissions by 2050 and promote environmentally sustainable air transport; and
- d) Encourage States to develop and adopt a national aviation strategy that aligns with ICAO's Strategic Objectives and new Long term Strategic Plan 2026 - 2050 to achieve ICAO's three essential aspirations of zero fatalities, net-zero emissions and a connected world.

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