



WORKING PAPER

**SEVENTH WORLDWIDE AIR TRANSPORT CONFERENCE
(ATCONF/7)**

Montréal, HQ, 16 to 20 November 2026

Agenda Item 3: Strengthening regulatory and institutional frameworks

**3.2: Enhancing air connectivity through progressive economic and regulatory
aviation frameworks for international air transport**

**OPTIMIZING AIR CONNECTIVITY THROUGH ENHANCED
ECONOMIC REGULATORY FRAMEWORKS**

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This paper examines air connectivity in a network-based international system where air connectivity outcomes remain uneven across regions. It outlines the concept, importance and current structure of global air connectivity, highlighting disparities and resilience across markets, and identifies key regulatory, operational and market constraints affecting air connectivity performance. It also considers emerging trends affecting resilience and sustainability. Building on this, the paper proposes practical, implementation-focused pathways for States to optimize air connectivity through market access liberalization, differentiated approaches for passenger and cargo services, strengthened regional cooperation, targeted support for underserved markets, and improved regulatory and operational effectiveness, supported by the International Civil Aviation Organization's (ICAO) guidance materials and tools.

Action: The action by the conference is detailed in paragraph 5.1.

<i>Strategic Goal:</i>	This working paper relates to Strategic Goal: <i>The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All.</i>
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken, subject to the resources available in the 2026–2028 Regular Budget and/or from extra budgetary contributions, including the Voluntary Air Transport Fund.
<i>References:</i>	Resolutions Adopted by the 42nd Session of the Assembly, Provisional Edition, October 2025 (ICAO Assembly Resolution A42-26) Doc 10221, <i>Assembly 42nd Session. Montréal, 23 September–3 October 2025 Economic Commission. Report</i> Doc 9626, <i>Manual on the Regulation of International Air Transport</i> Doc 9587, <i>Policy and Guidance Material on the Economic Regulation of International Air Transport</i>

1. INTRODUCTION

1.1 Air connectivity refers to the extent to which the international air transport system enables the efficient movement of passengers, mail and cargo between markets, involving minimum transit points, shortest practicable travel times, optimal user satisfaction and the lowest possible cost. It is an observable, system-level outcome resulting from the interaction of regulatory, operational and market conditions, rather than from individual routes or regulatory measures in isolation. It therefore reflects the overall functioning and integration of the air transport system, and the extent to which full market access is effectively implemented and translated into efficient and accessible connectivity.

1.2 Effective air connectivity underpins economic participation, accessibility and resilience, supporting an aviation sector that contributes USD 4.1 trillion to global GDP, sustains 86.5 million jobs worldwide and carries 33 per cent of world trade by value¹ By linking economies to external markets and services, air connectivity facilitates trade, tourism, investment, employment and social integration. Its role is particularly vital for geographically remote island, and landlocked developing States, where air transport is the primary means of reliable international access. The disruption of global air connectivity during the COVID-19 pandemic highlighted aviation's role as an economic enabler, with unprecedented reductions in air services causing severe impacts across trade, tourism, employment and supply chains, including a 94.4 per cent collapse in international passenger traffic at the peak of the crisis, the grounding of 64 per cent of the global fleet, and the loss of more than 2.3 million jobs across airlines, airports and the aerospace sector² Variations in air connectivity outcomes may therefore have important implications for economic inclusion and the balanced development of international air transport.

2. GLOBAL CONNECTIVITY STRUCTURE, DISPARITIES AND RESILIENCE

2.1 **Global connectivity landscape.** Air connectivity has expanded significantly over recent decades, evolving from early bilateral arrangements such as the Bermuda Agreement of 1946 into an increasingly interconnected global network. The air traffic is projected to reach 12.4 billion passengers by 2050 underscoring the importance of enhancing air connectivity in support of the aspirations of ICAO's Strategic Plan 2026–2050 for sustainable, resilient and inclusive air transport development. Multilateral frameworks, including the International Air Services Transit Agreement (IATSA), have also facilitated the operation of international air services by supporting the exercise of transit rights and contributing to the development of global route networks. This growth has been driven by demand, increasingly flexible air services frameworks, advances in aircraft technology and evolving airline business models. Scheduled services remain the backbone of global air connectivity, complemented by non-scheduled and charter operations serving tourist destinations, niche and emerging markets. Hub-and-spoke systems continue to extend network reach through indirect connections, while the growth of low-cost carriers has expanded point-to-point services, particularly to secondary markets, further contributing to air connectivity growth. Over time, the distinctions between airline business models have become less pronounced, contributing to a more interconnected landscape supported by interline arrangements, codesharing and alliances. Connectivity patterns nonetheless reflect structural differences in market size and geography, with smaller and remote markets relying more on indirect connections and limited gateways, resulting in longer travel times and reduced flexibility.

2.2 **Global connectivity disparities.** Connectivity remains unevenly distributed across markets and regions, despite overall global growth in traffic and network expansion. High-density routes linking major hubs and cities benefit from frequent services, multiple carriers and diverse routing options, while smaller or more isolated markets rely primarily on indirect connections through major hubs. Service

¹ Air Transport Action Group (ATAG), *Aviation: Benefits Beyond Borders 2024*

² Air Transport Action Group (ATAG), *Aviation: Benefits Beyond Borders 2024*

frequency, capacity and network reach are, therefore, highly uneven, resulting in differing levels of access and connectivity quality across markets. Differences are further reflected in the availability of direct routes, competitive options and the diversity of connections, which remain limited in smaller or peripheral markets. These disparities are most pronounced in Landlocked Developing Countries (LLDCs) and Small Island Developing States (SIDS), where limited traffic volumes and geographic constraints restrict direct services.

2.3 Connectivity resilience. The impact of the COVID-19 pandemic on air transport highlighted and reinforced existing disparities in connectivity. Service reductions were most pronounced on lower-density routes, while high-demand markets and major corridors recovered more rapidly. In contrast, many secondary and peripheral markets experienced slower and uneven recovery, with some routes not reinstated or operating at reduced frequency due to demand constraints, higher costs and shifting network priorities. These developments reflect broader network rationalization and capacity reallocation towards more commercially viable markets. As a result, recovery has been more resilient in established hub markets, while less connected regions continue to face persistent limitations, further widening existing disparities in connectivity performance.

3. CONNECTIVITY CHALLENGES

3.1 Regulatory constraints. Air connectivity is significantly influenced by the regulatory frameworks established and implemented by States. These constraints arise across key areas affecting market access, implementation and regulatory adaptability, as outlined below.

3.1.1 Market access restrictions and protectionist approaches. In many markets, limited liberalization persists, with Air Services Agreements (ASAs) retaining restrictions on capacity, frequency, routes or designation that constrain service development, in some cases reflecting cautious or protective approaches aimed at safeguarding national or domestic interests. In addition, the absence of ASAs between certain States may reflect selective or forward-cautious approaches to market access, influenced by current market conditions, the capacity or competitiveness of national carriers, and uncertainty regarding demand, rather than longer-term connectivity objectives. This can delay the establishment of cooperative frameworks or, in some cases, prevent the operation of international air services altogether.

3.1.2 Regional liberalization and implementation gaps. Regional and multilateral liberalization initiatives have contributed significantly to the progressive integration of air transport markets and the enhancement of intra-regional connectivity. Experiences such as the European Union (EU) Single Aviation Market, the Caribbean Community and Common Market (CARICOM) Multilateral Air Services Agreement (MASA), the Single African Air Transport Market (SAATM) for African States, and the Memorandum of Understanding on the Liberalization of Exclusive Air Cargo Services between the Civil Aviation Authorities of the Member States of the Latin American Civil Aviation Commission (LACAC) illustrate different approaches to liberalization and their potential to support connectivity, while interregional arrangements further demonstrate its expansion beyond regions, including the Comprehensive Air Transport Agreement (CATA) between the Member States of the Association of Southeast Asian Nations (ASEAN), and the EU and its Member States. At the global level, initiatives such as the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT) reflect efforts to advance broader multilateral liberalization, although participation remains limited and uneven, reflecting differences in national priorities, levels of market readiness and concerns regarding exposure to competition.

3.1.3 Regulatory adaptability to evolving market conditions. In some cases, regulatory frameworks may not adapt at the same pace as changes in airline business models, operational practices and market dynamics. The emergence of new entrants, new aviation services and innovative business models may further test the adaptability of existing regulatory frameworks. This can limit their effectiveness in supporting new forms of network development, cooperation and service delivery, and may constrain the

ability of the sector to respond to emerging air connectivity needs. In particular, a lack of adaptability may create uncertainty for airlines in planning and investment decisions and may hinder further innovation and the development of new operational and commercial approaches where regulatory conditions do not adequately reflect evolving realities.

3.2 Operational constraints affecting network development. Operational constraints influencing connectivity are primarily driven by limitations in infrastructure, airspace and operational processes within which airline networks operate. Constraints such as airport capacity, slot availability, infrastructure limitations, airspace restrictions including no fly zones, and operational requirements may limit the introduction, expansion or sustainability of services. Procedural requirements related to operational approvals may also delay the introduction and development of air services. Airspace and routing limitations can increase costs and travel times, affecting efficiency and reliability.

3.3 Market constraints affecting demand and viability. Air connectivity is also constrained by market conditions that affect the commercial viability of air services. Airlines' capacity and network decisions are driven by demand levels, cost structures and expected returns, resulting in a concentration of services in high-demand markets, while smaller or less stable markets experience limited and less reliable connectivity. Lower-density routes are particularly vulnerable to fluctuations in demand and operating conditions, increasing the risk of service reduction or withdrawal. These challenges indicate that connectivity is constrained not only by market access, but also by insufficient demand and limited commercial sustainability. Such challenges are often more pronounced in smaller, remote and geographically disadvantaged markets, including Landlocked Developing Countries (LLDCs) and Small Island Developing States (SIDS), where limited traffic volumes, higher operating costs and geographic constraints can further affect service viability. In response, ICAO has undertaken targeted initiatives and analyses to better understand these challenges and identify measures to strengthen connectivity and support sustainable air transport development in these States. Broader implementation of the Cape Town Convention and Aircraft Protocol may further support access to aircraft financing and leasing, thereby contributing to fleet development and improved connectivity outcomes.

3.4 Emerging trends and issues shaping connectivity. Technological advancements and evolving business models, including digitalization, the potential introduction of unmanned aircraft systems for international commercial services, and more flexible partnership arrangements, are influencing how services are designed and delivered. At the same time, factors beyond aviation, including geopolitical developments, labour issues, environmental requirements and broader economic conditions, are affecting operational capacity, costs and routing efficiency, while infrastructure and airspace limitations, together with shifts in travel behaviour and external shocks, continue to affect service sustainability. These trends underscore the need for regulatory frameworks that remain responsive and adaptable to evolving operational, technological and market conditions, and that support more efficient, resilient and forward-looking connectivity outcomes.

4. STRATEGIC DIRECTION: PATHWAYS TO OPTIMIZE CONNECTIVITY

4.1 Strategic pathways for States. Addressing air connectivity constraints requires a more outcome-focused application of regulatory frameworks, taking into account operational realities, market conditions and evolving industry trends. The following pathways may support States in enhancing connectivity through more effective, responsive and implementation-focused approaches.

4.1.1 Market access liberalization and modernization of regulatory frameworks. Market access liberalization remains a critical driver of improved connectivity in line with *ICAO's long-term vision for international air transport liberalization*. Expanding and effectively implementing market access,

supported by **fully** flexible market access provisions in ASAs, would enhance airlines' and new entrants ability to respond to evolving demand and operational conditions. This includes multiple designation, flexibility in capacity and routes, and modernized designation criteria based on principal place of business linked with effective control exercised through appropriate regulatory oversight. Where such flexibility is limited, connectivity remain constrained despite the existence of market access. Accordingly, States are encouraged to enable **full** operational flexibility while maintaining safety, security and appropriate economic oversight, to ensure balanced market development.

4.1.2 ***Strengthening regional and interregional cooperation.*** States are encouraged to strengthen regional cooperation to address fragmentation in the international air transport system, in line with Assembly Resolution A42-26³. Priority should be given to the effective and timely implementation of existing regional arrangements, ensuring that agreed provisions translate into operational outcomes, supported by improved coordination among relevant national authorities and alignment across related policy areas, including immigration, customs and border processes. Regional Safety Oversight Organizations (RSOOs) and other cooperative mechanisms can further support these efforts by facilitating harmonized regulatory approaches, pooling expertise and resources, and strengthening institutional cooperation to enable safe, seamless and sustainable regional and interregional connectivity. These efforts can contribute to greater regulatory convergence and support the gradual development of more coherent and integrated global connectivity frameworks.

4.1.3 ***Enhancing connectivity in underserved and lower-density markets.*** Improving air connectivity in underserved and lower density markets requires targeted measures addressing both market access and commercial viability. Traffic rights alone are often insufficient, as administrative constraints and limited demand and trade volumes may restrict their effective use. States may consider more flexible approaches, including granting market access on a unilateral basis, streamlined approvals and greater operational flexibility for passenger and cargo services. Measures to stimulate demand, including simplified visa processes, trade facilitation, targeted tourism promotion and destination development initiatives, supporting passenger mobility, as well as improved logistics and customs efficiency, together with cooperative arrangements such as codesharing and interlining, could help extend network reach and support more commercially viable and sustainable services across markets. These efforts may also be complemented by measures that facilitate access to aircraft financing and leasing, including implementation of the Cape Town Convention and Aircraft Protocol where appropriate, government incentives to support essential air services on some critical routes, and prioritization of investments in aviation infrastructure, thereby supporting fleet development, connectivity expansion and long-term service sustainability. ICAO's support can be reinforced through targeted revenue mobilization and donor partnerships; the LLDC Aviation Needs Analysis is a concrete fundable example.

4.2 **ICAO's support to States.** ICAO will continue to support States in optimizing global air connectivity and the sustainable development of international air transport, in line with its Strategic Goals and relevant Assembly resolutions on economic development of international air transport. To this end, ICAO will continue to provide policy guidance, capacity-building and implementation support through established tools and platforms that promote dialogue and the progressive modernization of market access frameworks.

³ [Assembly Resolution A42-26.pdf](#)

5. RECOMMENDATIONS

5.1 The following recommendations are proposed for consideration by the Conference:

- a) States should grant full market access and enhance flexibility in its application, to enable more flexible commercial airline operations, adopt modernized designation criteria, including principal place of business provisions, and ensure economic regulatory conditions that support fair, transparent and efficient airline operations while supporting legal and institutional arrangements that facilitate connectivity, investment and sustainable fleet development;
- b) States and relevant regional organizations should strengthen regional and interregional cooperation, including through RSOOs and other cooperative oversight arrangements, ensuring effective implementation of existing arrangements and improved coordination with relevant authorities and stakeholders to facilitate more integrated air connectivity outcomes;
- c) States should take targeted actions to enhance air connectivity in underserved and lower-density markets, through flexible market access, simplified procedures and coordinated measures with relevant authorities to support demand and service viability, while facilitating investment in civil aviation, including infrastructure development, fleet modernization, and other measures that strengthen air connectivity and resilience; and
- d) ICAO will continue to support States in optimizing air connectivity through the provision of policy guidance, such as the Template Air Services Agreements (TASA), capacity-building and implementation support, including through relevant tools and platforms, and by promoting cooperation and the progressive harmonization of air transport economic regulatory frameworks.

— END —