

**57th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

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**AGENDA ITEM 6: ECONOMIC DEVELOPMENT OF
AIR TRANSPORT**

**ICAO'S WORK ON ECONOMIC DEVELOPMENT OF
AIR TRANSPORT**

Presented by the ICAO Secretariat

SUMMARY

This paper reports on ICAO's priority work under the Strategic Objective – *Economic Development of Air Transport*, summarizing the Organization's work related to air transport policy and regulation, as well as funding and financing for aviation infrastructure. It also presents ICAO's work related to aviation data and analysis, which focuses on big data, business analysis tools and air traffic forecasts.

ECONOMIC DEVELOPMENT OF AIR TRANSPORT

1. INTRODUCTION

1.1 The Economic Development of Air Transport is one of the five Strategic Objectives of ICAO. It aims at fostering a sound and economically viable civil aviation system that provides the freedom to travel affordably, enhances economic efficiency and transparency, facilitates access to funding and financing for aviation infrastructure development, promotes technology transfer and capacity building to support the growth of air transport for the benefit of all stakeholders.

1.2 As described in the draft ICAO Business Plan for 2023-2025, the ultimate goals of this Strategic Objective are to remove regulatory impediments to international air transport and to elevate the issue of funding and financing of aviation infrastructure in national economic development plans. These mean that States can use aviation as an effective development tool by placing it at the centre of their national/regional development framework, resulting in: a) improving air connectivity; b) creating more competitive business opportunities; c) increasing consumer's benefits and choices; and, at the same time, d) reducing financial burden and costs in performing their regulatory oversight functions. The delivery of the results with respect to this Strategic Objective will contribute to the growth and efficiency of the air transport sector and the global economy, as well as supporting and enhancing trade and tourism.

2. DISCUSSION

2.1 AIR TRANSPORT POLICY AND REGULATION

2.1.1 The main achievements made by ICAO in the follow-up work to the 40th Session of the Assembly (A40) are highlighted below. Many of the tasks were undertaken by the Air Transport Regulation Panel (ATRP) under the direction of the Air Transport Committee (ATC), some of which are still continuing.

2.1.2 **ICAO's Long-term Vision for International Air Transport Liberalization.** The A40 urged all Member States to give regard to, and apply, the ICAO Long-term Vision for International Air Transport Liberalization in their policy-making and regulatory practices. ICAO has continued to support States by ensuring that policy and guidance materials in the field of air transport economics remain current. It also embarked on enhancing dialogue and exchange of information amongst Member States and industry on liberalization of market access for passenger and air cargo services through various fora, including the annual ICAO Air Services Negotiation Event (ICAN) and the World Air Services Agreement (WASA) database ([Home - WASA \(icao.int\)](https://www.icao.int/wasa/)).

2.1.3 **Air carrier ownership and control, liberalization of air cargo and operations of unmanned aircraft.** At the Sixteenth Meeting of the Air Transport Regulation Panel (ATRP/16) held in April 2022, the Panel discussed, (i) a revised draft Convention on Foreign Investment in Airlines; (ii) an examination on whether there is a need for a specific international agreement to facilitate further liberalization of air cargo services; and (iii) an examination of whether there is a need to develop guidance material on economic regulation of unmanned aircraft. Based on the Panel's recommendations, the ATC endorsed the:

- a) continuation of the work to advance the development of the draft Convention on Foreign Investment in Airlines;
- b) examination of whether there is enough justification to recommend to the ATC to consider the development of a specific international agreement to facilitate further liberalization of air cargo services; and
- c) conduct of in-depth assessment on whether there is a need to develop guidance for economic regulation of international operations of unmanned aircraft system

and for the ATRP to liaise with other ICAO Panels and expert groups on relevant aspects of the subject matter.

2.1.4 Fair competition. ICAO has developed, and is continuously updating, the compendium of competition policies and practices in force nationally or regionally. Now covering 129 States, or 68 per cent of the ICAO membership, this compendium is available at: <https://www.icao.int/sustainability/Compendium/Pages/0-default.aspx>.

2.1.5 Consumer protection. A compendium on regulatory practices in the field of consumer protection, and particularly on passengers' rights, is continuously being updated by the Secretariat. (<https://www.icao.int/sustainability/Pages/ConsumerProtectionRules.aspx>). The compendium now holds information from 189 Member States and 4 regional organizations. In the matter of responses to, and coordination of, massive airport/airline disruptions, ICAO continues to update the Compendium on States' Emergency Response Plan (<https://www.icao.int/sustainability/ERP/Pages/default.aspx>), which currently holds information of best practices from 28 Member States. States are encouraged to update the Secretariat on their national emergency and contingency plans in case of aviation system disruption. In accordance with Assembly Resolution A40-9 and the positive feedback from States, the ICAO Council, during its 220th Session, encouraged States to continue to give due regard to and apply the Core Principles in State policy-making, regulatory and operational practices, including in cases of massive disruptions that impact aviation.

2.1.6 COVID-19 economic and financial measures. To support the financial stability and recovery of the aviation industry during the COVID-19 pandemic, the ICAO *Guidance on Economic and Financial Measures* was developed, in line with Recommendation 10 of the ICAO Council Aviation Recovery Task Force (CART). The guidance outlines a range of measures that can be explored by States and industry, and is available in all ICAO official languages at: <https://www.icao.int/sustainability/Pages/Economic-and-financial-measures.aspx>.

2.2 INFRASTRUCTURE MANAGEMENT

2.2.1 ICAO continues to make efforts in aviation infrastructure development, including developing and updating policies and guidance on the charging for airport and air navigation services and the funding and financing for aviation infrastructure. The Eighth Joint Meeting of the Airport Economics Panel and the Air Navigation Services Economics Panel (AEP-ANSEP/8), held in December 2021, has further progressed the work on these aspects.

2.2.2 Update of ICAO's policies and guidance on airport and air navigation services economics. Comprehensive review was made to the *Manual on Air Navigation Services Economics* (Doc 9161), aiming at providing updated guidance on the charging for air navigation services and economic and financial management, as well as incorporating amendments also applying to the Fourth Edition of the *Airport Economics Manual* (Doc 9562). Work is still ongoing on the update of Doc 9161, including the issue of modifying air navigation services charges for improving environmental performance.

2.2.3 New guidance and tools to support investment decisions on financing aviation infrastructure. A new standalone *Manual on Economic and Financial Analyses for Aviation Infrastructure Projects* (Doc 10170) was developed to provide detailed guidance on how to conduct economic and financial analysis for the evaluation of costs and benefits of aviation infrastructure projects. The Manual was adopted at the AEP-ANSEP/8 and will be published later this year.

2.2.4 Development of guidance on funding for the provision of services to civil aviation. Working groups were established at AEP-ANSEP/8 to address the funding aspects for enhanced and/or emerging services. These include the cost recovery for the provision of aeronautical meteorological (MET) services and the provision of space weather information services. Work is ongoing to assess the economic

aspects of the unmanned aircraft system (UAS) and explore possible funding mechanisms to support its operation.

2.2.5 Modernization of Tariffs for Airports and Air Navigation Services (Doc 7100). Continuous enhancement is made to the online application of Aero Tariffs (<https://data.icao.int/aerotariffs>), which converts the paper-based Doc 7100 into a web tool. The application provides an analytical platform in the formulation and benchmarking of airport and air navigation charging scheme.

2.2.6 Economic impact of COVID-19 on airports and air navigation services. Efforts were made to support the financial stability of airports and air navigation services providers (ANSPs). The ICAO *Guidance on Economic and Financial Measures*, as indicated in paragraph 2.1.6, contains a range of measures that are applicable for airports and ANSPs, and additional measures will be explored as necessary and as the situation evolves. Moreover, work is ongoing to address the capital expenditure (CAPEX) needs to meet the sustainable development goals as well as future capacity demand.

2.3 AVIATION DATA AND ANALYSIS

2.3.1 ICAO Statistics Programme. During the Third Meeting of the Aviation Data and Analysis Panel (ADAP/3) held in June 2021, several recommendations were made on ICAO's statistical activities, including a) the collection of data on cybersecurity incidents; b) the survey on the licensed aviation personnel by gender; and c) the statistical definition of non-scheduled all-cargo traffic. The recommendations of ADAP/3 were presented to the Eleventh Session of the Statistics Division (STA/11) in April 2022. Following STA/11, work has been carried out on the collection of new and/or additional data through the ICAO Statistics Programme, including the Air Transport Reporting Forms and surveys.

2.3.2 Big data. Continued efforts have been made to enhance the Organization's capacity and capability in managing, processing and analyzing big data through advanced technology, including cloud computing, artificial intelligence and machine learning. The big data sources used by ICAO, i.e. a) Market Intelligence Data Transfer (MIDT); b) Automatic Dependent Surveillance-Broadcast (ADS-B); and c) Commodity and Trade (COMTRADE) and e-commerce transactional data (E-com), represent an all-encompassing coverage of traffic and operational data at a very high level of granularity.

2.3.3 ICAO Big Data Dashboard. ICAO worked with the United Nations Global Big Data Group to develop business intelligence dashboards for data driven decision making. The ICAO dashboards cover a wide array of analytics ranging from operations, fleet usage, passenger carried, Flight Information Region (FIR) traffic, and revenue impact on airlines, airports and air navigation service providers at different levels of granularity. They allow for the visualization and download of data by State, region, route group and FIR. The exclusive license to access these big data dashboards has been provided to all Member States. Information contained in the dashboards is continuously being updated. These dashboards will be extremely valuable to Member States in their recovery from the COVID-19 pandemic, planning and implementation efforts.

2.3.4 ICAO single set of long-term traffic forecasts. The long-term traffic forecasts for passenger and cargo traffic were updated using 2018 baseline and made available with three indicative post-COVID-19 scenarios, i.e. mid, high and low scenarios.

2.3.5 Aviation Satellite Account. ICAO progressed the work on the development of the Aviation Satellite Account (ASA) methodological framework for the measurement of the direct economic contribution of aviation to national economy, in accordance with the decisions of the 40th Session of the Assembly. Work has been carried out to validate the draft ASA methodological framework using data from national accounts and economic impact studies, as well as to assess the impact of the inclusion of aircraft manufacturing in the scope of the measurement of economic contribution of civil aviation.

2.3.6 **United Nations Sustainable Development Goals (SDGs).** ICAO is the custodian agency of the Sustainable Development Goal (SDG) indicator 9.1.2 on passengers and freight volumes, by mode of transport (air, maritime, inland waterways, road and rail). The integration of official statistics with big data sources of different international organizations is reflected in the annual global SDG report. Using the online UN SDG platform¹, States can monitor progress towards achieving SDG goal 9.1.2 and benchmark their air transport infrastructure to facilitate related investments.

2.4 AIR TRANSPORT FUND

2.4.1 The Air Transport Fund, established in 2014 by ICAO (State letter 2014/32 refers), serves as a mechanism for the collection and use of voluntary contributions from States and other donors to support ICAO's activities in the air transport field: <http://www.icao.int/sustainability/Pages/TRAF.aspx>

2.4.2 The outstanding projects to be possibly undertaken by ICAO under the voluntary contributions of the Air Transport Fund include the “Air Transport Eliminating Poverty: ICAO’s Essential Services and Connectivity Improvement (ESCI) Scheme”, “iPLAN: Planning for Travel Disruptions”, “Business Aviation: A Productive Booster”, “Air Freight Indices”, and “Targeting Cargo Theft and Delay”.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- a) support ICAO’s work for Economic Development of Air Transport;
- b) encourage States to apply and follow ICAO’s policies and guidance in the air transport field, in their regulatory practices;
- c) encourage States to apply and follow ICAO’s policies and guidance on infrastructure management, including the charging policies;
- d) encourage States to provide statistics required by ICAO in a timely manner;
- e) encourage States to use ICAO data, tools and analysis; and
- f) encourage States to actively participate in the ICAO upcoming meetings.

¹ <https://unstats.un.org/sdgs/dataportal/database>

APPENDIX A

1. STATE OF AIR TRANSPORT OF THE ASIA AND PACIFIC (APAC) REGION

1.1 Air carriers of the States in the APAC region (39 States to which the ICAO APAC Office is accredited) represented 37.6 per cent of the world passenger traffic measured in revenue passenger-kilometres (RPKs), and recorded an annual -62.2 per cent decline in 2020. Airlines in the region carried 765 million passengers in 2020 (-53.5%, compared with 2019).

1.2 With 674 billion RPKs performed in 2020, airlines of China accounted for 59.9 per cent of total passenger traffic performed by airlines in the APAC region. Airlines in India and Japan accounted for 7.6 per cent and 5.9 per cent, respectively. Due to the COVID-19 pandemic, these three States in the region recorded a steep-drop of -53.0 per cent, -61.1 per cent, and -67.6 per cent in RPK in 2020, respectively.

1.3 Around 27.7 per cent of the passenger traffic performed (in RPK) by airlines in the APAC region is international. International traffic of the region decreased by -80.8 per cent in 2020. China is the largest domestic market in the world with 35.8 per cent share of the world domestic traffic in 2020, and recorded an annual decrease of -31.2% in this year.

1.4 Airlines in the APAC region shrunk their capacity in available seat-kilometres (ASKs) by -54.5 per cent in 2020. The capacity in ASK decreased by -74.2 per cent for international services and by -30.3 per cent for domestic services.

1.5 The passenger load factor diminished to 67.8 per cent in 2020, reaching 60.3 per cent for international services and 71.2 per cent for domestic services.

1.6 Cargo traffic performed by carriers of APAC accounted for 35.5 per cent of the world freight traffic measured in freight tonne-kilometres (FTKs), and recorded a decrease of -20.4 per cent in 2020 after a small decrease of -5.2 per cent in 2019. Over 87.7 per cent of the air freight traffic performed by APAC carriers is international. Carriers of China represented 55.8 per cent of the total freight traffic of the region, and registered a decrease of -20.5 per cent.

1.7 Revenue tonnes-kilometres (RTK) performed by airlines in the APAC region represented 36.5 per cent of the world total RTK, and dropped -52.9 per cent in 2020. International RTK of the region decreased by -62.1 per cent in 2020. Information on the ranking of States' RTKs for international scheduled air services can be found in the 2020 Annual Report of the Council to the Assembly².

1.8 Aviation is not only a major engine of economic growth for States, but it is also increasing their tourism and facilitating world trade. Air connectivity is indispensable for tourism in many States in the APAC region, especially Least Developed Countries (LDCs) and Small Island Developing States (SIDS, i.e. Pacific Island States).

2. FORECASTS

2.1 The results of the new ICAO long-term forecast indicate that global passenger traffic will grow at +3.6

² https://www.icao.int/annual-report-2020/Documents/ARC_2020_Air%20Transport%20Statistics_final_sched.pdf

per cent annually to 2050. Twenty-one route groups outpace the global growth, including 13 route groups affecting APAC States. The fastest growing route group in APAC is South West Asia–Middle East, which is estimated to grow at around +7.3 per cent annually. Global freight traffic is expected to grow at +2.5 per cent annually over the same time period as passenger forecasts. Asia and Pacific region is expected to grow at around +3.1 per cent annually trailing the global estimate by +3.5 percentage point.

APPENDIX B

1. AIR TRANSPORT MEETINGS

1.1 **Capacity-building Workshop on Economic Oversight and Regulation for Sustainable Development of Air Transport in Africa:** ICAO and the African Civil Aviation Commission (AFCAC) jointly organized the virtual workshop, in March 2021. The workshops were held back-to-back for AFCAC Member States of the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS) and the Arab Maghreb Union (AMU), from 16 to 18 March and for Member States of the East African Community (EAC), the Intergovernmental Authority on Development (IGAD), the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), from 23 to 25 March.

1.2 **ICAO Africa/Middle East Air Transport Symposium:** The symposium was held in a virtual format from 30 to 31 August 2021 aiming at renewing key multilateral commitments on path to recovery. Focused around the theme of promoting and harnessing the benefits of liberalization, the two-day virtual event brought together high-level policy makers, air transport regulators, industry representatives, aviation professionals, and other stakeholders to drive important progress on regional air transport coordination and recovery.

1.3 **ICAO Air Services Negotiation (ICAN) event:** The Thirteenth ICAN was held in Bogotá, Colombia, from 6 to 10 December 2021 in a hybrid format, which allowed for in-person and virtual participations. The event was attended by delegates from 71 States/territories; 346 formal and informal bilateral meetings were conducted, which led to the signing or initialling of 161 agreements and arrangements. As at the end of 2021, a total of 159 States (representing 80 per cent of ICAO membership) have utilized this facility at least once. ICAN2022 will take place in Abuja, Nigeria, from 5 to 9 December 2022, and will be hosted by the Nigerian Civil Aviation Authority (NCAA).

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