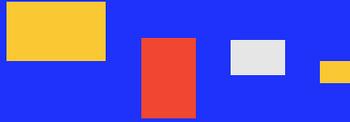


IATA
GLOBAL
MEDIA DAYS



Connectivity Study

No Connectivity, No Economic Growth

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#IATAAGM



IATA is pleased to release the new Global Air Connectivity report.

Agenda

1

IATA's global air connectivity report

2

COVID-19 disruptive impact on global air connectivity

3

Importance of restoring air connectivity for key economic flows

4

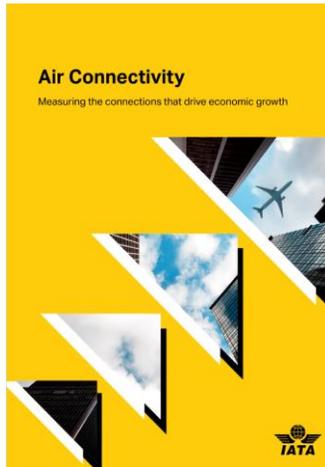
Government role in supporting airlines to restore air connectivity, crucial for economic recovery



Aviation's unique value comes from what it carries

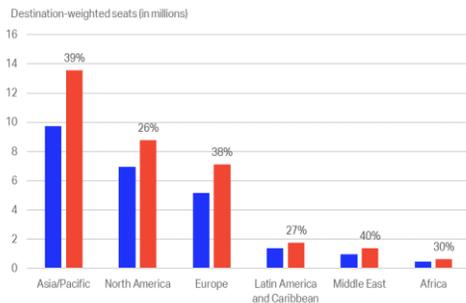
Rapid and efficient air transport connections critical for economies

- 1** Air connectivity shows how well connected a country's cities are to other cities around the world, critical for trade, tourism, investment and other economic flows.
- 2** IATA's air connectivity index is a composite measure reflecting the number of seats flown to the destinations served from a country's major airports and the importance of those destinations.

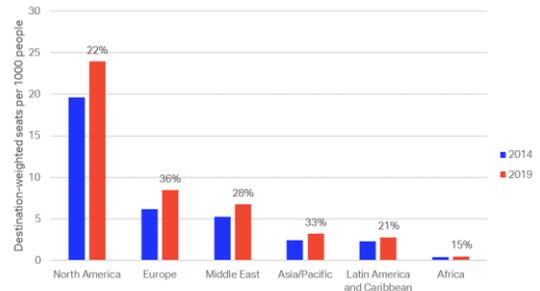


We created an IATA air connectivity measure To evaluate how well-connected regions, countries and cities are

Absolute connectivity, measured by destination-weighted seats, grew most in **Asia Pacific** before COVID-19



For GDP, connectivity relative to country size matters; **N America and Europe** ahead in terms of boost to economic growth



Source: IATA Economics



We developed a connectivity index to measure how well connected a country's cities are to other cities around the world, critical for trade, tourism, investment and other economic flows.

It is a composite measure reflecting the number of seats flown to the destinations served from a country's major airports and the economic importance of those destinations.

Connectivity levels have been improving across all regions in the past 5 years (prior to the pandemic). Asia Pacific is the best-connected region in the world. Growing domestic markets, most notably in China, India and Indonesia, have supported growth in overall air connectivity. In terms of connectivity growth, both Asia and the Middle East have had the highest growth rates over the five-year period from 2014 to 2019.

The level of connectivity will depend to some extent on the size of a country's economy and the size of its population. Larger economies with sizable populations will naturally be connected to a greater number of destinations and offer more available seats compared to smaller countries.

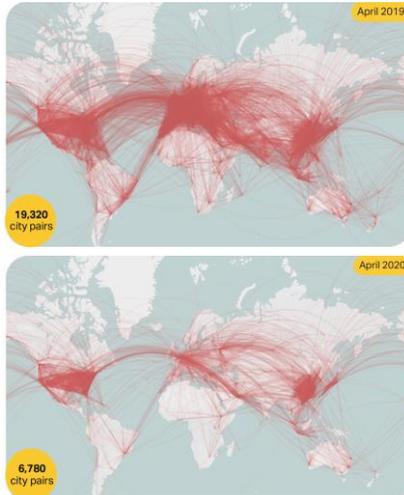
An absolute air connectivity score is not necessarily a measure of quality. Various alternative measures of air connectivity, which adjust for the size of a country's economy or population, can be used to report air connectivity.

Our research shows that connectivity relative to country size boosts economic growth

- A positive link between connectivity and productivity. A 10% rise in connectivity, relative to a country's GDP, will boost labour productivity levels by 0.07%.
- The impact is greater for developing countries. Investments in air transport in countries where connectivity is currently relatively low will have a much larger impact on their productivity and economic success than a similar level of investment in a relatively developed country.

After adjusting for population size, North America, which has the second highest absolute connectivity indicator, ranks first, followed by Europe.

COVID-19 robbed the world of a century of progress In shrinking distances and bringing people together through connectivity



- Before COVID-19 air service connected over 19,000 city pairs
- Pre-COVID-19 the number of unique city pairs has more than doubled since 2000
- While the cost of air transport for passengers and cargo shippers has more than halved, after adjusting for inflation
- COVID-19 has caused significant loss in air connectivity, less than 7,000 city-pairs remaining
- Losing 65% of city-pairs will have an impact as we lose the convenience of direct connections



Source: IATA Economics; data provided under license by FlightRadar 24. All rights reserved.

COVID-19 has robbed the world of a century of progress in shrinking distances and bringing people together that has created jobs and grown prosperity.

Air connectivity is vital for the functioning of the modern economy. It links markets and people through city-pair connections that serve as virtual bridges supporting the flows of key economic activities across markets. Direct and efficient connections between cities enable the flows of goods, people, capital, technology and ideas.

Before the COVID-19 pandemic, economic development worldwide was getting a significant boost from air transport and improved connections between cities.

The number of unique city-pair connections with scheduled air services was set to exceed 23,000 in 2020, more than double the connectivity by air twenty years ago.

The price of air transport continued to decrease, after adjusting for inflation.

Compared to twenty years ago real transport costs have more than halved. (We measure real cost of air transport for users by looking at the total revenue per RTK (revenue tonne kilometer).)

The disruptions brought about by the COVID-19 pandemic have caused a significant

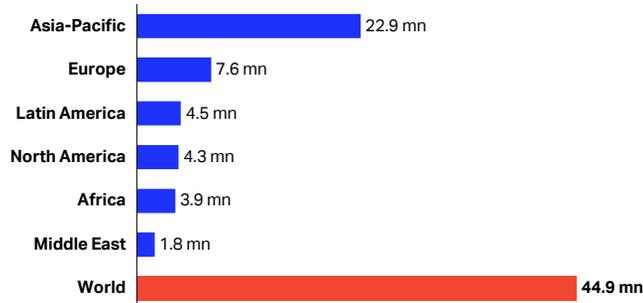
loss in city-pair connectivity. At the lowest point in April, the number of unique city pairs connected by regular air service declined by 65% relative to the same period last year, with less than 7,000 city-pair connections remaining.

As of the end of October, the number of unique city-pairs was 36% lower than its level of at the beginning of this year and we do not expect connectivity to recover in the remaining part of the year. Hence, unique city-pair connectivity will decline for the first time since the global financial crisis. There is also a risk that the number of unique city-pair connections is not fully recovered, which would undo some of the gains of recent years.

Aviation as an employer: traditional measure of impact However this emphasizes home carriers rather than all serving a country

Employment supported by air transport at risk due to COVID-19

Full Time Equivalents, millions



**87.7
million**

Jobs supported by
aviation worldwide

4.1%

Contribution of
aviation to global GDP
(equivalent to
\$3.5 trillion)

**17th
rank**

If aviation were a
country, it would rank
17th in size by GDP

Source: IATA Economics using data from ATAG.

Note: Economic impacts measure direct, indirect, induced and tourism catalytic impacts.



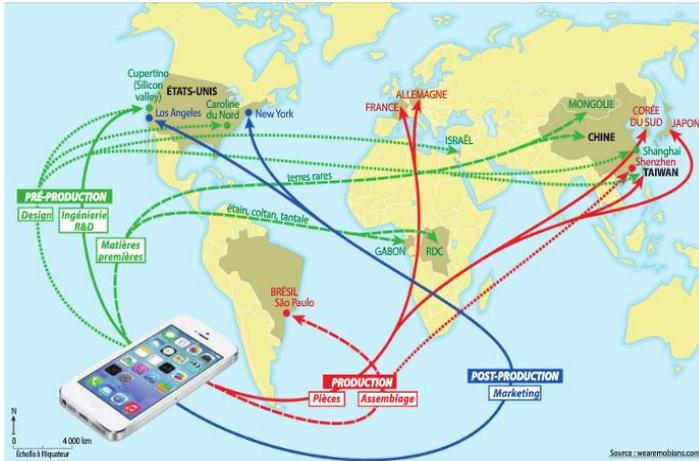
Globally, aviation supports a total of 87.7 million jobs, contributing about \$3.5 trillion or 4.1% to global GDP. If aviation were a country, it would rank 17th in size by GDP (similar to Indonesia or the Netherlands).

Aviation jobs are on average 4.3 times more productive than other jobs across the economy. Due to the disruptions caused by the COVID-19 pandemic, more than one half of employment and economic activity supported by aviation is at risk.

It is employment and economic activity supported by aviation that usually gets reported as a measure of its wider economic impact. However, this tends to emphasize employment and economic activity supported (directly and indirectly) by home carriers rather than all carriers serving a country. The broader benefit generated by all carriers serving a country is to facilitate economic development through improved linkages which other markets.

Air connectivity is critical for global supply chains

Half of world trade today is in components for key supply chains



Source: MICMAG

Air transport carries around **35% of world trade by value** (\$6.5 trillion), although less than 1% by volume

In 2020, we forecast that the value of international trade shipped by air will be \$5.8 trillion

Air transport is vital for international trade in manufactured goods; particularly for the components industry

The **iPhone** travels to consumer markets by B747. A single B747 can carry 150,000 iPhones, quickly and cost-effectively.



Air connectivity plays a critical role in connecting economies with the global supply chains

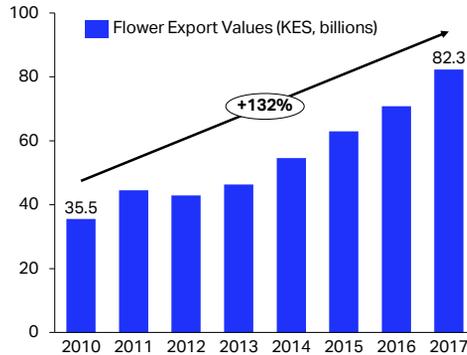
Air connectivity is essential for trade flows; trade itself has resulted from globalized supply chains and associated investment. Air transport is vital for international trade in manufactured goods, particularly for the components industry that accounts for a major part of cross border trade today.

We forecast that the value of international trade shipped by air this year will be \$5.8 trillion, 10% lower compared to 2019 but is forecast to rise above 2019 levels in 2021

The supply chain for an iPhone is a good illustration. The iPhone is designed in California, manufactured and assembled in countries in Asia, Europe and Latin America and sold all over the world. Many high value electronics products and product components are transported by air.

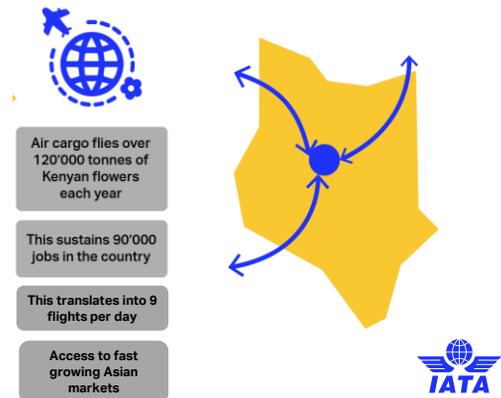
And aviation's unique value comes from what it carries Rapid, economic, air transport connections are critical for trade

Cut flowers are Kenya's second largest export, contributing around 1% of the country's GDP



Source: IATA Economics using data from the Kenya Flower Council

Time is critical for transporting freshly cut flowers: for one extra day spent flowers lose 15% of value.



Kenya's export of freshly cut flowers

2010 flower export value = USD 448 million

2017 flower export value = USD 795 million

Kenya is among the top exporters of freshly cut flowers. In the past decade, revenue from exporting freshly cut flower has more than doubled.

Air transport is critical for transporting perishables – flowers lose about 15% of value for one extra day spent on transportation.

It is improved air connectivity which enables Kenya to reach a wider spectrum of markets for sale of freshly cut flowers, including fast growing markets in Asia.

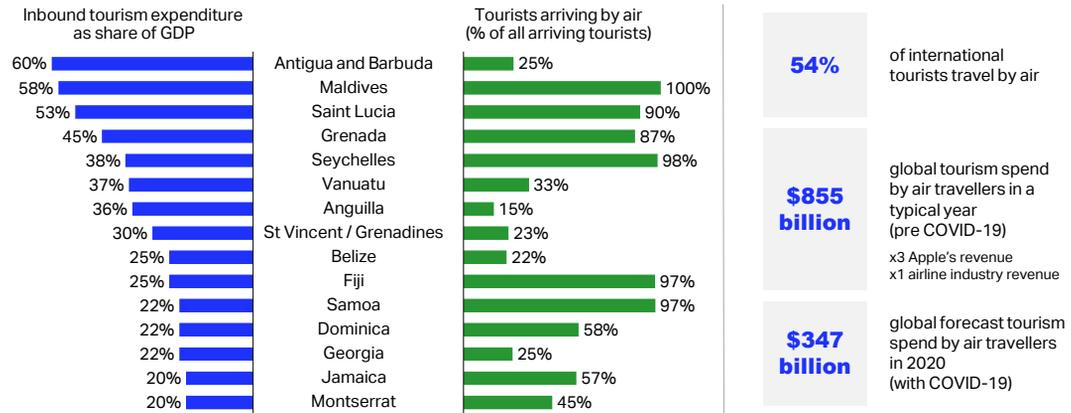
Kenya is particularly important as a source of roses – the country supplies one third of all roses sold in the EU.

Cut flowers are now Kenya's second largest export after tea, contributing around 1% of the country's GDP.

They are also one of the country's largest source of employment, with over 90,000 people working directly in the flower industry and an estimated two million

indirectly.

Many emerging economies depend on inbound tourism Tourist spending can represent up to 60% of GDP in some economies



Source: IATA Economics; data from UNWTO and UNCTAD.



Air connectivity supports tourism flows

Aviation is indispensable for tourism, a major engine of economic growth, particularly in many emerging economies. Globally, 54% of international tourists travel by air. Total tourism spend reaches \$855 billion in a typical year. For some economies, tourist spending supports up to 60% of a country's GDP. This also means that a large share of employment in such countries is supported by tourism, enabled by aviation.

In 2020, tourists travelling by air are forecast to spend \$347 billion, 59% less than the previous year. Next year, tourists travelling by air are forecast to spend \$559 billion, equivalent to the level back in 2012.

And for connecting distant and island communities Social cohesion in Europe and elsewhere depends on air connectivity



Source: IATA Economics; data provided under license by FlightRadar 24. All rights reserved; PSO route data from the European Commission,

Air connectivity serves as a vital lifeline for many remote and peripheral communities. Such communities often lack adequate road or rail networks.

For many remote communities and small islands, access to the rest of the world and to essential services, such as health care, is often only possible by air.

Prior to the pandemic, more than 130 routes in the European Union received some form of support from the government to ensure reliable air linkages to remote communities. During the pandemic, service on 79 of those route was interrupted, with 14 routes not recovered even today.

Air services are particularly important in situations where physical access is problematic. Restoring air service to those communities is essential for peoples lives and livelihoods.

What does IATA advocate for?

1

Governments to reopen borders and relax quarantine restrictions

2

Focus of support on stimulating demand recovery, to restore air services

3

Forms of support

- lower taxes, fees, charges;
- route subsidies;
- incentives for flights / seats;
- advanced payments / vouchers;
- passenger travel subsidies.



Any questions or comment?

Please use the chat to submit any question or comment, we will try to answer as many as possible.

