

Perspective

Rebound and steep increase of international travel after the COVID-19 pandemic: where are we going from here?

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When the Coronavirus Disease of 2019 (COVID-19) began to spread across the world in early 2020, the travel industry had just been able to show an impressive steady and sustained growth over many years, reaching as high as 1.5 billion international tourist arrivals annually.¹ Even though over the last decades, there have been several crises directly affecting aviation, their impact on air traffic was neither profound nor long-lasting (Figure 1).² The passenger numbers were still steadily increasing over time, with an exponential boost in the last 20 years.² All the more profound and unprecedented was the effect that occurred when most of the world enforced border closures and introduced travel restrictions after the World Health Organization characterized the COVID-19 outbreak as a pandemic in March 2020.³ With the drastic worldwide mobility restrictions in order to contain the viral spread over the course of the year 2020, the world total passenger number plummeted by 60% compared to 2019, leading up to a loss of 1 billion international tourist arrivals.^{1,2} We all remember the images of deserted airport lounges and grounded aircraft fleets. Civil aircrafts were flying practically empty in order to keep the contractual flight obligations, or they were being repurposed as repatriation flights or cargo airplanes to transport personal protective equipment and other medical supplies. During these early times of the pandemic, tourism adapted to shorter and last-minute stays, rather closer to home, with connection to nature and outdoor activities, and with more focus on health and safety measures.⁴

Within few months, more than a 100 million jobs in the travel industry and related tourism sectors were placed at risk and affected the livelihoods of millions of people across all economic settings, from low income up to high income countries.¹ Particularly hard hit were countries where tourism revenue made up large parts of their gross domestic product and their economic growth, small businesses upon which up to 80% of global tourism was relying, as well as women and youth who

represented the majority of tourism workforce and yet, were the most vulnerable players.⁵ With international tourism collapsing to an almost complete standstill within a very short time, reports and images of positive effects on nature and environment spread around the world, impressively showing smog-free cities, steel blue skies, cleared waters in rivers, lakes and seashores, and changed wild animal behaviours due to a global slowdown in human activity or so-called ‘anthropause’.⁶ It seemed as though nature was able to catch a breath again once the human presence and influence was dramatically decreased. Yet, only with time, it became publicly available that the sudden drop of international tourism not only jeopardized the livelihood of many people, but also cut off important revenue necessary for biodiversity and heritage conservation as well as environmental and wildlife protection efforts.⁵ Also, the initial environmental benefits during the pandemic, including reduction of emissions and air pollution, were only short-term, and therefore slowing down climate change is still strongly dependent on a systemic change with green stimulus and reductions in fossil fuels.⁷

After the collapse of air travel in 2020, the slow path of recovery was strongly influenced by recurrent COVID-19 infection waves driven by various virus variants and the introduction of COVID-19 vaccines and their distribution and roll-out.² And in addition, travel proved very unpredictable due to ever-changing travel restrictions, dynamic border openings in various parts of the world, very different political approaches and measures taken by different countries in relation to their pandemic response, and requirements of COVID-19 vaccine certificates or tests, which at the last moment could make travel impossible or put travellers in quarantine or isolation during their trip. The trust of travellers in travelling again had to be regained first. The air traffic industry responded with education about pandemic measures on airplanes regarding infection control and prevention, changes in flight cancellation policies and facilitation of rebooking and refunding

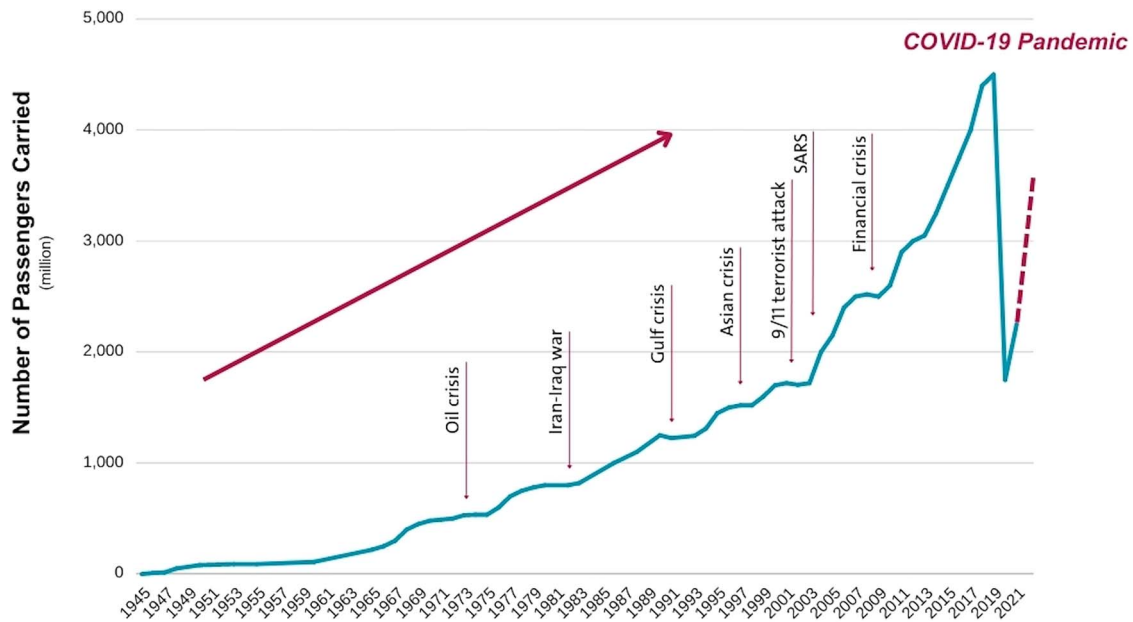


Figure 1 World passenger traffic evolution, 1945–2022. Continuous increase of air traffic passengers over the past decades with sudden drop due to the COVID-19 pandemic (adapted from Ref. 2).

flights. Considering that international travel was recovering with significant regional variation, the world total passenger numbers started to hesitantly increase at a slow pace in the first six months of 2021 and finally reaching 51% of pre-pandemic levels by the end of the year 2021.² Hereby, Europe accounted for >50% of the world international passengers, and North America represented with 30% the most world domestic passengers.² Yet, it was not until 2022 that air travel and therefore international tourism consolidated again at a considerable rate. Over 900 million tourists travelled internationally that year, which represented a strong rebound compared to the year 2021 across many regions of the world.⁴ In fact, this increase in travel activity was even stronger than expected and mainly based on widespread immunization against COVID-19, a large pent-up demand of travelling, and lifting of travel restrictions in many regions, especially in Asia and the Pacific. Whilst by the end of 2022, the world total passenger numbers had already reached 71% of pre-pandemic levels, this number is expected to continue to increase even more up to 80–95% of pre-pandemic levels for the year 2023, driven by strong results in Europa and especially the Middle East.^{2,4} Preliminary results of the first quarter of 2023 are already backing up this forecast, with an estimated 235 million tourists having travelled internationally so far this year and many more expected to do so during North Hemisphere summer season 2023.^{4,8} Flight tracking applications report record days, sometimes tracking ~140 000 commercial flights in one single day.⁹ Nonetheless, since some regions delayed easing travel restrictions or just recently reopened to reestablish the travel flows and recover the air connectivity, worldwide international air traffic is not expected to return to pre-pandemic levels before 2024 or 2025.⁸ Current forecasts of air traffic development well into the post-pandemic time mostly predict a solid sustainable growth over the next years and point overall towards a promising future for tourism again.¹⁰ Yet, the scenarios include some degree of uncertainty and unpredictability, primarily influenced

by mounting geopolitical conflicts, major economic challenges, as well as increasing awareness of climate change and sustainability in travel and tourism.⁴ In order to maintain the passenger confidence in the airline industry, International Air Transport Association called for a better preparedness for future health emergencies by creating a pandemic preparedness framework to avoid fragmented response in case of a crisis, to strengthen cooperation and communication, and to avoid future border closures by all means.¹¹

Now that pandemic-related travel restrictions have largely been lifted and international travel has entered a remarkable rebound and pent-up phase, it seems the appropriate time to also re-frame tourism to pursue a different direction. Recovery from the pandemic is more than just catching up ‘years of lost air traffic’. The collapse of the travel and tourism industry can be seen as a watershed moment and provides us with the opportunity to rethink the interactions of tourism with cultures, societies, ecosystems and resources.⁵ Some positive trends and behavioural changes already seen in travellers when mobility restrictions started to ease included more responsible, authentic and sustainable travel options with positive impacts on local communities and more considerable focus on health and safety measures.⁴ Carrying these important positive aspects into the post-pandemic reality seems like something our generation has to take on and initiate for the better for all the beings and the health of our planet. This is aligning with the growing efforts of the aviation industry towards a carbon neutral and resource efficient future, with net zero carbon emissions by 2050^{11,12} and is leading towards a Responsible Global Citizenship, where globally minded travellers embrace their social responsibility to act for the benefit of all societies, not just their own.¹³ The lessons learned from the pandemic fall into the greatest period of global ecological change recorded in human history and call for a Planetary Health approach to prevent future pandemics.¹⁴

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Data availability

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