



**Address by the Secretary General  
of the International Civil Aviation Organization (ICAO)  
Dr. Fang Liu,  
to the Conseil des relations internationales  
de Montréal (CORIM)**

***“Civil Aviation: An Engine of Economic Development”***

*(Palais du congrès, Montréal, 13 February 2018)*

1. *Je suis très heureuse de prendre la parole au CORIM aujourd’hui.*
2. *Je souhaiterais en premier lieu remercier votre Président-directeur général, **monsieur Pierre Lemonde**, de son bien aimable invitation.*
3. I have chosen my topic for today’s remarks because many world States and Regions are presently at an important turning point in terms of their local sustainable development.
4. The 17 United Nations Sustainable Development Goals, adopted under *Agenda 2030* in 2015, began an important process which has seen the world’s governments re-orient and re-prioritize themselves toward new and visionary socio-economic planning and projects.
5. These efforts have supported the balanced pursuit of their societies’ economic, social, and environmental objectives, or what we more commonly recognize as the ‘Three Pillars’ of truly sustainable development.
6. And certainly from an overall perspective, *Agenda 2030* is now doing its part to raise global awareness and drive many of the new activities which the United Nations hoped it would, whether to help eliminate poverty and diminish inequalities, or toward its many other objectives.

7. I referred to where we now stand in this process as a ‘turning point’ because we are also now faced with some challenges with respect to some *Agenda 2030* outcomes.
8. While it is very encouraging, for instance, that plans are being drawn up in Member States to achieve the SDGs, and that investments are being sought to support them, the cross-integration of overall SDG planning is still lacking in some respects.
9. This important need for sustainable development planning convergence is one of the core elements of ICAO’s global advocacy work today, and it’s my pleasure to discuss that more with the business and cultural leaders who comprise the CORIM.
10. We see it as one of our key responsibilities in ICAO today to sensitize government decision-makers on how their aviation development objectives must be suitably prioritized, and inclusively aligned, with their broader SDG planning.
11. These efforts recognize that the air transport sector today directly and indirectly supports the employment of 62.7 million people worldwide, that it contributes 2.7 trillion dollars in global Gross Domestic Product (GDP), and that modern aircraft move over 4.1 billion people and over a third of world freight by value on 37 million flights each year.
12. This work also takes into consideration some sobering data from areas of the world which have some of the most acute needs in terms of sustainable development; for example the fact that no fewer than 24 international airports across Africa today will be saturated and unable to handle more traffic in just two years’ time.
13. Given how important tourism growth will be to many States’ future revenue streams, as well as the fact that aviation connectivity serves as a veritable lifeline to foreign markets and suppliers for businesses all over the world, and in developing States in particular, the importance and urgency of this work becomes very clear.
14. To support it accordingly, ICAO first got to work analyzing and mapping out how the social and economic contributions of ICAO-compliant aviation connectivity directly support the attainment of no fewer than 15 of the 17 SDGs.

15. In 2016 we also launched our Aviation Partnerships for Sustainable Development (APSD) initiative, which now includes significant levels of representation from the UN system, international and regional organizations, financial institutions, and the private sector.
16. A similar cross-section of government and finance stakeholders also join us each year at our World Aviation Forums, which I initiated in 2015. These events are focused on helping States to develop solid business cases supporting their aviation projects, to coordinate their aviation projects with their national development strategies, and to connect them with the finance and donor and investment communities.
17. We have also worked in close cooperation with many of our key industry partners, through global aviation's Industry High-level Group (IHLG), to prepare a comprehensive publication describing air transport's key socio-economic benefits.
18. Some of this report's success stories include the example of Kenya, where Nairobi's main international airport has been connected via an efficient and complementary road network to its flower producing regions around Lake Naivasha.
19. Flowers picked each morning reach the international markets in Amsterdam that same evening, and this uniquely rapid aviation capability for these highly perishable shipments has translated into 100,000 local jobs and a billion dollars in annual economic activity.
20. The report also highlights aviation's impacts in regions such as the Caribbean, where 90 percent of local tourists arrive by air. The more than 27 billion dollars in tourist revenue this generates for Caribbean States would be sufficient to cover all of its spending on health care and education combined.
21. We have also appreciated some related studies on this topic, such as one recently presented at Princeton University's *Research Program in Political Economy*. Its data and analysis outlines the very positive and sustainable economic impacts that result when new direct air routes are established between destinations.

22. I've alluded to tourism impacts at several points in these remarks, and it serves as an excellent case in point for demonstrating how tourism planning convergence and cross-integration with harmonized aviation policies is so essential to the overall economic benefits achieved.
23. For example, developing state-of-the-art air transport facilities is not only a sensible move concerning competitiveness in attracting international travellers, but also can serve as a powerful incentive for foreign direct investors to explore economic opportunities in other sectors.
24. Similarly, improvements in airport infrastructure or advanced air traffic control and air navigation systems, better safety and security services, and the liberalization of air transport more generally, bring many associated benefits to governments seeking to break their countries free from longstanding vicious circles of economic and logistical disadvantage.
25. And related investments are also needed for human capacity development, so that we do not find ourselves with a modern new aviation system in the coming decades yet no professionals to operate it. This is critical from a safety and security standpoint.
26. With 192 Member States now accredited to ICAO, another key consideration for us concerns the varying needs, characteristics and economic vulnerabilities which each of these States is confronted with.
27. Some countries for example are too small or too remote to achieve structural transformation through industrialization, but possess significantly under-exploited natural and cultural tourism potential, as well as further opportunities via the trade in services.
28. We should also not forget how important e-commerce activities are now becoming for 21st century consumers all over the world, and the key role which air transport plays in facilitating same-day or next-day deliveries.
29. Nearly 90 percent of business-to-consumer (B2C) e-commerce today is delivered by air, and this percentage grew from 16 to 83 percent in just the six year period between 2010 and 2016.

30. ICAO helps States to attenuate and align their local air transport operations core work in developing consensus-based civil aviation standards, and also through our Global Plans for aviation Safety, Air navigation Capacity and Efficiency, and more recently aviation Security.
31. With respect to data to aid their development planning, part of our work involves us serving as the custodial UN agency responsible for collecting air traffic data toward the agreed global indicator of SDG Target 9.1 – *passenger and freight volumes by mode of transport*.
32. This data and analysis is reflected in the annual global SDG report issued by the UN, and also gets embedded in the online UN platform for monitoring the progress towards the SDGs.
33. This in turn supports a critical platform for States’ evidence-based policy making, permitting them to pursue data-driven approaches to address their infrastructure gaps through appropriate policy and financing interventions.
34. Another key factor in our advocacy considerations involves aviation growth.
35. Our sector has historically doubled the number of passengers and flights it manages once every fifteen years, and it is poised to do so again by 2030.
36. This points us to the realization that aviation’s potential benefits in terms of enhanced connectivity will also be growing significantly.
37. This helps us to stress to governments why it’s so important that they are prepared, in terms of their air transport infrastructure, skilled resources, and overall levels of ICAO safety and security compliance, to take fullest advantage it.
38. Growth also raises concerns in terms our network’s contributions to climate change, a key consideration for sustainable development.
39. Current international air transport activity accounts for just under two percent of annual man-made greenhouse gas emissions, and our sector is working very hard to ensure this total doesn’t double along with our traffic growth.

40. Fortunately, good progress is being made across the full range of options available to us in terms of:
  - Cleaner engines and other technological innovations;
  - Streamlined routes and procedures to minimize fuel burn;
  - The deployment of green aviation fuels in over 100,000 flights;
  - And our States' historic endorsement in late 2016 of the CORSIA emissions offsetting framework.
  
41. Another key challenge presented by growth concerns the numbers of skilled professionals aviation can access and retain to help operate and manage our expanding global transport system.
  
42. Today, at the same time as our sector is growing, its workforce is contracting due to the inevitable demographics of aging populations, lowering birth rates, and other attrition factors.
  
43. These challenges to air transport workforce planning are further aggravated by the increasing number of high-tech careers in other industry sectors which compete with aviation for up-and-coming talent.
  
44. This dynamic is playing out virtually all over the world today, and it has forced us to recognize that aviation has to do a much better job of both attracting and retaining the skilled workers and managers it requires in the decades ahead.
  
45. ICAO and our aviation partners recognized these trends as far back as 2009, and for ICAO's part we quickly responded to them by putting in place our Next Generation Aviation Professionals (NGAP) programme, and by consolidating our training planning and resources into a Global Aviation Training (GAT) office.
  
46. Late last year we hosted our inaugural Next Generation of Aviation Professionals Global Summit here in Montréal, where over 500 education and air transport leaders worked together to develop strategies to help aviation attract the best and brightest.
  
47. This event also featured a very popular set of 'Model ICAO' panel competitions, and its overall success has encouraged us to make it annual event which we will ensure gets conducted in all ICAO regions.

48. ICAO has recently updated its forecasts for three key air transport professions; namely, pilots, air traffic controllers and aircraft technicians.
  49. Our new numbers have revealed that no fewer than 620,000 pilots will be needed by 2036 to fly the world's 100-seat-and-larger aircraft, and that 80 percent of these future aviators will be new pilots who are not yet flying today.
  50. The story is the same with respect to the future air traffic controllers, maintenance personnel, and other technicians needed, but we should recall that these are just a few of literally hundreds of direct and indirect aviation-related career categories which will be impacted by attrition-related trends.
  51. What this makes clear is that we will not only need to increase the overall numbers of next generation aviation professionals, but also manage their balanced movement between countries and employers.
  52. We also need to broaden our scope and begin instilling greater aviation awareness in high school and younger students, and especially in young girls, in addition to our work with the university-level and young professional demographics.
  53. Greater gender equality in aviation will be critical to our aspirations to ensure sustainable levels of skilled aviation personnel in the challenging decades to come.
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54. Ladies and gentlemen, with over 1,400 scheduled airlines, 26,000 aircraft in service, 3,900 airports, and 173 air navigation services providers, aviation has established an unmatched global network at the service of travellers and businesses in every corner of the world.
  55. Our network today moves over half the world's 1.3 billion tourists annually, empowers nations and peoples regardless of their geographic location, and has become an essential means by which many global citizens gain access to what they need most – whether in terms of food, healthcare, employment, or education.
  56. VISA's Chief Economist recently highlighted that they are now seeing the emergence of a 'traveller class' that will be spending a growing portion of its household income on cross-border travel.

57. Meanwhile the International Labour Organization (ILO) has affirmed that travel and tourism will be a key sector for continued job growth globally, and that it should stay resilient in this capacity despite adjacent global challenges.
58. Arne Sorenson, President and CEO, Marriott International, has further noted that revolutionizing the way we travel beyond our national borders will require governments working together with the best the private sector has to offer, in order to build a secure, successful system that citizens will both use and trust.
59. ICAO regards these and many similar insights as being direct testaments to the importance of air travel to future global prosperity and income re-distribution, and also of the role of our Organization in bringing industry and governments together to the benefit of all.
60. We are also expecting air transport capacity and modernization to be critical investment priorities in support of some high-profile global trade expansion objectives being pursued today, for instance China's *Belt and Road Initiative*.
61. Whether it be responses to crises in hours of dire need, humanitarian aid, business missions or leisure activities like vacations or visits to friends and relatives, aviation has changed the way we live and it has transformed our expectations of what we can experience and achieve in our lifetimes.
62. The 2030 Sustainable Development Agenda is unique in that it calls for action by all countries, poor, rich and middle-income, to promote prosperity while protecting the planet and leaving no one behind.
63. ICAO is tremendously proud to be aiding and contributing to the SDG process, and to be consistently advocating to States on how their ability to ensure ICAO-compliant local operations in terms of safety and security is fundamental to their goals to connect to the world and realize aviation's incredible socio-economic benefits.
64. We will continue to advocate for greater investment and recognition for our network, so that it, in turn, may continue to support our world and its sustainable societies.
65. Thank you.