



BULLETIN

FACILITATION OF TRANSPORT AND TRADE IN LATIN AMERICA AND THE CARIBBEAN

# Transport and aviation policy in Latin America and the Caribbean in the context of sustainable development

## Background

Throughout its hundred-year history, commercial civil aviation has simultaneously been a driver and an outcome of trade and global connectivity. While the first commercial airline carried 1,205 people in 1914, about 3.3 billion passengers and 51.5 million tons of cargo, with a total value of US\$ 6,460 billion, were transported by air in 2014 (IATA, *Economic Performance of the Airline Industry*, 2015).

Even if several studies have been carried out on the significance of air transport for national and regional economies,<sup>1</sup> there is still a lack of recognition of the aviation sector's (real and potential) contribution to sustainable development in the region, or of the implications of this approach for public policies. The main goals of the High Level Expert Workshop on air transport and policy, organized by ECLAC in collaboration with the Latin American Civil Aviation Commission (LACAC) and the Civil Aviation Board of Chile and held in Santiago from 15 to 18 June 2015, were to encourage reflection on this issue and to evaluate the challenges for air transport policymaking.

This *FAL Bulletin* summarizes the main ideas shared at the seminar, presents the general context of air transport development in Latin America and the Caribbean and addresses issues related to commercial aviation policies, airport management, the environmental effects of air transport, and facilitation and security in the aviation sector. The main conclusions of the event are presented in the final section.<sup>2</sup>

<sup>1</sup> For Latin American countries, see the studies carried out by International Air Transport Association (IATA) and Oxford Economics [online]: <http://clacsec.lima.icao.int/2013-publicaciones/estudioIATA-Oxford.htm>.

<sup>2</sup> The event programme and presentations are available at [online]: <http://clacsec.lima.icao.int/Reuniones/2015/SemChile-TPA/conv.html#PRESENTACIONES>.

This *FAL Bulletin* reviews the main ideas shared at the workshop of high-level experts on transport and aviation policy, held from 15 to 18 June 2015 in Santiago. The event was organized by the Latin American Civil Aviation Commission (LACAC), the Civil Aviation Board of Chile and the Economic Commission for Latin America and the Caribbean (ECLAC).

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The opinions expressed in this document are those of the authors and do not necessarily reflect those of the Organization.



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UNITED NATIONS

ECLAC

## I. Background information on air transport in Latin America and the Caribbean<sup>3</sup>

Several studies have shown that the Latin American and Caribbean region continues to face an array of challenges, a reality which is reflected in the region's modest logistic performance in an increasingly demanding global market for passenger and cargo transport. Particularly evident factors are the persistent inadequacy of transport infrastructure, the failure to exploit the competitive advantages of different modal choices, the insufficient use of technology and innovation, a rise in negative externalities and a lack of security and facilitation of procedures and processes.

Based on this assessment, ECLAC—in its proposal to the region—considers that to achieve the necessary changes to infrastructure and transport services, transport-related public policies need to be transformed into authentic State policies that transcend economic and political fluctuations and which are based on a long-term vision for the sector. The adoption of an integrated approach that addresses issues of infrastructure and logistical quality, together with the effective regulation of services, greater sustainability in the sector and the facilitation of processes, is fundamental to this transformation. It is equally necessary that all the dimensions of sustainability—economic, social, environmental and institutional—be incorporated at every stage of policymaking.

One direct implication of this integrated and sustainable approach relates to the traditional organization of the transport sector, which is generally conceived in terms of specific modes of transport. The required public policy shift is that of adapting a co-modal approach, seeking efficiency in the modal distribution of transport services through the optimal use of all means of transport and possible combinations thereof, resulting in journeys that are efficient and sustainable from start to finish in terms of individual operational needs and total cost to society. This involves exploiting the advantages offered by each mode of transport in the overall context of an integrated logistics and mobility system at the national level. In this context, air transport, as one of the main means of local and international connectivity and as a factor in the territorial integration and socioeconomic development of countries, deserves special consideration.

As highlighted by LACAC, air transport provides 58.1 million jobs worldwide, transports around 2.97 billion passengers annually and contributes US\$ 2.4 trillion dollars to the world economy (equivalent to 3.4% of global GDP).

Demand for air transport is closely tied to economic growth and is therefore expected to continue to increase in Latin America and the Caribbean. According to data from the Civil Aviation Authority of Colombia, global passenger traffic doubled in the last 10 years, while cargo traffic increased by 25% in the same period. Demand for passenger transport in Latin America and the Caribbean has surged, with Central America recording the fastest growth between 1992 and 2014 (21.64%), followed by South America. Conversely, North America's share of the international market diminished, while that of Europe held steady. The international cargo segment followed a similar pattern; South America's market share almost tripled in the same period, with average annual growth of 8.4% between 1992 and 2014, followed by Central America and Europe. North America's share of the total cargo transport market gradually decreased from 75.7% in 1992 to 63.3% in 2014.

According to the latest projections from the Global Passenger Forecast Report, published by the International Air Transport Association (IATA) in October 2014, the number of passengers is expected to reach 7.3 billion in 2034, more than double the number transported in 2014, with an average annual growth rate of 4.1%. Latin America is projected to grow by 4.7% annually, with Brazil as one of the five fastest-growing passenger transport markets in the world. In terms of country pairs, Asian and South American destinations are expected to be the fastest growing markets.<sup>4</sup>

Providing an adequate response to this rising demand, ensuring not only efficiency but also security and the management of resulting externalities, is one of the key challenges for public policies in the region. In a context of globalization, all stakeholders in air transport (passengers, airlines, cargo carriers and airports) enter into a dynamic, interdependent and complementary relationship. Air transport policies must therefore address, in addition to the appropriate regulations, aspects related to the security, access, ownership and oversight of air carriers, consumer protection, fair competition, safeguards, taxes and other charges on air services, economic aspects of airports and air travel services, multimodal transport, new technologies, and so on.

International institutions such as the International Civil Aviation Organization (ICAO) play a fundamental role in the development of a global framework for aviation activity. Also vital are the regional institutions, particularly LACAC, which serves as an important platform for promoting the development of civil aviation in Latin America, with the aim of integrating the regional air transport market.

<sup>3</sup> This section is based on the presentations given by the representatives of ECLAC, LACAC and the Governments of Chile and Colombia during the first session of the workshop.

<sup>4</sup> For more information see [online]: <http://www.iata.org/pressroom/pr/pages/2014-10-16-01.aspx>.

## II. Commercial aviation policies<sup>5</sup>

Access to airspace is an issue that is directly related to the sovereignty of States. Currently, international aviation markets are not perfectly competitive because of the different agreements on freedoms of the air that exist between countries. According to the representative of the Civil Aviation Board of Chile, the countries of the region are still engaged in active discussions on whether open or protected markets are the best policy. This has led States to pursue bilateral and multilateral negotiations in the hope of arriving at an agreement on freedoms of the air.

According to the Secretary of LACAC, some Latin American countries such as Chile, Uruguay and Paraguay have an open transport policy, others such as Colombia, Guyana, Peru, the Plurinational State of Bolivia and Suriname have a flexible policy, and some such as Argentina and the Bolivarian Republic of Venezuela have a more restrictive policy. In that sense, the representative of LACAC underlined the importance of the Multilateral Open Skies Agreement signed by the Governments of Brazil, Colombia, Chile, the Dominican Republic, Guatemala, Honduras, Panama, Paraguay and Uruguay in 2010. The LACAC representative considered it crucial that the region pursue a common policy, as has been achieved in Europe with its integration and open skies reform. He also stressed the importance of coordinating air transport policies with the development of the tourism sector, since it is not productive to have an open policy in one sector, while others remain closed. A more open air transport policy would directly benefit States (by improving connections with the outside world), the industry (by enabling the operation of more routes), consumers (by bringing down fares) and lastly the economy and trade in general. The importance of fair competition and the role of States in implementing competition laws were also mentioned.

Representatives of Chile and Colombia shared the experiences of their respective countries with regard to the open skies policy that has been applied in recent years. In the case of Chile, commercial air policy is underpinned by five principles: free access to markets, freedom to set prices, minimum State intervention, liberalization of ownership and control, and stable regulations. The representative from Colombia, meanwhile, stated that although that country had adopted an open skies policy, it was currently in a position of gradual liberalization, and deemed it necessary to protect its domestic industry from foreign competition until it is ready for healthy competition. At present, Colombia's cargo transport market is more open than that of passenger transport.

Lastly, the speakers agreed that air service liberalization had provided a boost and benefits for the industry, noting the experiences of countries where this policy has been successful and others where it has not. It was suggested that the organizations in attendance should incentivize analytical studies in this area, with a view to improving future policy decisions in this area.

## III. Airport management<sup>6</sup>

In the past, airports were simply providers of infrastructure, primarily interested in ensuring that the needs of national airlines were met, while being financed and controlled by the State. As such, they were considered natural monopolies. During the 1990s, a trend for the liberalization and privatization of airports emerged. Faced with growth in air traffic and the need to invest in airport infrastructure, States sought to respond through privatization, corporatization or concession, thus transforming airport management into a business, providing diversified activities for clients with different needs. With the liberalization of air transport and growing competition between airlines, airports switched from being reactive to proactive entities, even competing among themselves for market share.

There is currently no single mechanism for airport management, with governance and ownership structures differing even within countries. According to data from Airports Council International (ACI), 74% of the world's airports are publicly owned, 19% are public-private partnerships and 8% are fully privately owned.

Measured by annual passenger traffic, the airports of Latin America can be classed as follows: 71% are small (fewer than 1 million passengers per year), 19% are medium-small (between 1 and 5 million), 8% are medium-large (between 5 and 15 million) and 2% are large (over 15 million passengers per year), with the latter accounting for 60% of all passengers. Given that 5 to 15 million passengers is the optimum airport capacity in terms of cost, operating costs are a significant financial concern for more than 90% of airports.

Global data from ACI show that each passenger spends an average of US\$ 20 in airports, although in Latin America the figure is US\$ 14.40, of which US\$ 9.40 is aeronautical revenue and US\$ 5.10 non-aeronautical revenue. Consequently, there is potential to improve revenues, especially in non-aeronautical streams such as food and retail. Latin America has the lowest expenditure on staffing, at 27% of total spending, compared with

<sup>5</sup> This section is based on presentations given by LACAC and representatives from the governments of Chile and Colombia at the second Session.

<sup>6</sup> This section is based on presentations given by ECLAC, Airports Council International and representatives of the governments of Argentina, Ecuador, Mexico, Paraguay and Uruguay during the third session of the workshop.



a global average of 35%. The “other” category, which includes spending on technology, also accounts for 27% of total expenditure in Latin American airports (compared with a global average of 17%). As a result, only 33% of airports are profitable, and the remainder survive thanks to cross-subsidies or funding from large airports.

Nevertheless, changes in airport management have generally facilitated increased competition between airports, owing to the efficiency gained by reducing operating costs and attracting local traffic. The changes have also contributed to the emergence of new airlines, new goods and new routes, as well as partnerships between airports, sharing methods of operation, attracting customers and earning their loyalty.

Build-operate-transfer (BOT) contracts are the most common form of concession in Latin America, and their duration is based on a set number of years or the fulfilment of revenue targets in which minimum returns to the operators are generally not guaranteed. Aeronautical revenues are usually regulated, while airports are free to set prices for non-aeronautical revenue streams. At the same time, experiences of airport concessions have varied significantly in different Latin American countries.

The representative of Mexico highlighted the strategy of awarding concessions to groups of airports, in which a highly profitable airport supports others with smaller returns, as is the case with the Cancún group. Given the concessions strategy in Mexico, the airport operator reduces the risk by realizing projections of future demand for passenger services, since this demand will determine non-aeronautical revenues and the likely return on investment in infrastructure, although every airport should be efficient and profitable.

The experience of Ecuador shows that airports do compete when they have global and local markets close by. This is the case with Guayaquil and Quito airports, which compete for passengers and cargo from nearby cities that do not have access to an international airport. Accordingly, the airport that develops the best network of routes in conjunction with the airlines will attract the most business.

The National Director of Airports of Chile stated that concessions had allowed the country to quadruple public investment in airport infrastructure over 10 years. He explained that reaching total concession revenue earlier than planned causes problems for the State, since it is not yet prepared for a new bidding process, and as such a five-year extension of the period in which to meet the revenue target was under consideration. The latest concession for the Arturo Merino Benítez International Airport that serves Santiago and the surrounding area included an investment trigger, dependent on the demand for embarking passengers.

Uruguay faces the challenge of maintaining its national airport system (12 international airports, although not all offer regular international flights, and 4 domestic airports). Two international airports operate under concessions, and the main concern is to keep the rest of the network operational for the social benefits and well-being of the communities served.

The discussion related to airport concessions in the region revealed that each concession is different and that only a code of good practice (and nothing more ambitious) can be created at the regional or global level on the basis of national experiences. The technical prowess and knowledge acquired by each State can be used as an input for others that are engaged in concession processes. The well-being and social inclusion generated by each airport depends on the economic development of the country. The increasing use of airport infrastructure is leading to the emergence of new challenges such as passenger education, strategies to inform them of their rights and more transparent transport contracts.

The success of concessions is subject to increases in air traffic and policies adopted in other sectors, such as air service liberalization or tourism development. For that reason, it is vital that countries draw up national plans that set out their fundamental priorities for airports—better connectivity or greater floor space—and act in accordance with a comprehensive and strategic infrastructure development plan.

## IV. Environment<sup>7</sup>

Aircraft are now 90% quieter and 70% more efficient than they were in 1960. Despite this, aviation is estimated to be responsible for 2% of all greenhouse gas emissions, equivalent to 697 million tons per year.

<sup>7</sup> This section is based on the presentations by the representatives of ECLAC, the Latin American and Caribbean Air Transport Association (ALTA) and the Governments of Chile, Guatemala, Mexico, Paraguay and Uruguay during the third session of the workshop.

Carbon dioxide emissions from the burning of fossil fuels by aircraft have been under consideration since the first United Nations Framework Convention on Climate Change (UNFCCC). Under the Kyoto Protocol, the obligation to limit or reduce the effect of greenhouse gases only applies to the countries included in annex 1, which made explicit reference to international air transport and handed responsibility for emissions to ICAO. LACAC has been very active in organizing the exchange of experiences and opinions between Latin American countries, with a view to presenting the region's perspective in international negotiations.

Environmental targets have been set for civil aviation based on the following four elements: technological improvements with more efficient aircraft, optimization of operational actions such as take-offs and landings, compensatory Market-based Measures (MBMs) and the use of biofuels. The discussion during the seminar focused on the latter two instruments.

#### A. Market-based measures

MBMs are regulatory economic instruments for internalizing negative externalities through emissions trading and offsetting. Given that reductions achieved through technological and operational improvements alone are insufficient, MBMs are the preferred mechanism of ICAO to meet the target of carbon neutral growth from 2020 onward.

For this purpose, ICAO is currently studying a model for emissions trading, considering only CO<sub>2</sub> emissions and using the growth recorded in the last three years as a baseline. The model includes all international flights and individual and collective use of carbon offsetting. Adjustments are applied for rapidly growing airlines and those that adopt emission-reducing technology. This scheme, which is still subject to change, will become compulsory in 2020.

national interests. The representative of Guatemala, which is currently an environmental focal point for LACAC, stated that prior regional agreements could facilitate a global agreement, provided that the regional positions fit into a global framework with upper and lower limits to guide the proposals. In that regard, LACAC proposed an approach based on three fundamental elements. First, take ownership of the carbon footprint; second, ensure that environmental policies do not hold back growth in Latin America; and third, do not allow the aviation sector to be used to offset emissions from other sectors.

The Latin American and Caribbean Air Transport Association (ALTA) considered the defence of the region's aviation industry its primary concern, not only to protect economic growth but also because of the social benefits of air travel, since alternative modes of transport are non-existent for many Latin American destinations. According to the representative of ALTA, Latin America (the second fastest growing region in air traffic) possesses one of the youngest aircraft fleets, while investment in infrastructure has risen and remains on the increase. The region has advantages in mitigation measures, and its investments must be defended. ALTA believes that mitigation indicators should be discussed when other regions match the levels attained by Latin America. The region's countries have been working on MBM policies, but there is a need for criteria to be aligned in the framework of ICAO.

The representative of ALTA also stated that components related to operational and technological measures should be incorporated into the work of the "Strawman" group set up by the Council of ICAO. During the debate, the representative of Mexico said that her country had achieved good results with biofuels and that Central America has restructured its routes through Performance Based Navigation (PBN) procedures. Both are important measures but need to be more widely implemented and better funded. It was also pointed out that MBM

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