



Responsibly Addressing Climate Change

In 2012, air transport produced 689 million tonnes of CO₂, around 2% of global CO₂ emissions. IATA recognizes the need to address the global challenge of climate change and adopted a set of ambitious targets to mitigate CO₂ emissions from air transport:

- an average improvement in fuel efficiency of 1.5% per year from 2009 to 2020;
- a cap on net aviation CO₂ emissions from 2020 (carbon-neutral growth); and
- a reduction in net aviation CO₂ emissions of 50% by 2050, relative to 2005 levels.

IATA is determined to be part of the solution but insists that, in order to achieve these targets, a strong commitment is required from all stakeholders working together through the four pillars of the aviation industry strategy, namely:

- improved technology, including the deployment of sustainable low-carbon fuels;
- more efficient aircraft operations;
- infrastructure improvements, including modernized air traffic management systems;
- market-based measures, to fill the remaining emissions gap.

Policy Measures

Technology, including sustainable alternative fuels

Of the four pillars, technology has the best prospects for reducing aviation emissions. The industry is making great advances in technology such as new composite lightweight materials, new engine advances, or the development of sustainable alternative fuels.

At its 37th session in October 2010, the ICAO Assembly decided to develop a certification standard for CO₂ emissions. The standard will be used to ensure that new aircraft meet a baseline for CO₂ emissions. With IATA's full support, an important milestone was reached in July 2012 when ICAO's Committee on Aviation Environmental Protection (CAEP) agreed on a metric for the new CO₂ standard. Certification procedures were adopted in February 2013. The assessment of different stringency levels remains to be carried out before the standard can be adopted.



Advanced, sustainable biofuels have an important role to play in the industry's environmental strategy. Compared to conventional kerosene, these alternative fuels can reduce CO₂ emissions by up to 80% on a full carbon life-cycle basis. As of today, over 1500 flights have been operated using blends of biofuels and conventional kerosene. These flights have demonstrated that alternative fuels are safe and technically sound. However, several challenges must be overcome before they can be deployed on a large scale. Among others, access to financing should be facilitated to de-risk investments. In addition, as liquid biofuels are the only alternative source of energy for air transport, the policies of states should ensure that aviation is allocated its share of biofuel supply despite competition for that supply with other modes of transport.

Operations and infrastructure

It is estimated that more than 12% of total fuel usage and emissions could be avoided by eliminating inefficiencies in the air transport system.

Fuel efficiency improvements enable airlines to reduce emissions as well as operating costs. In addition to technological improvements, improved operational practices, such as reduced APU usage, more efficient flight procedures or weight reduction measures can all contribute to achieve emissions reductions. Analysis by IATA estimates that CO₂ from commercial airline fuel burn could be reduced by an additional 28 million tonnes or 3.2% in 2020 and by 35 million tonnes or 2.9% by 2030 through airline operational measures.

Airlines are not the only ones who can contribute to reducing air transport's carbon footprint. In particular, support for optimized air traffic management is critical. It is estimated that 28 million tonnes of CO₂ emissions could be avoided if air traffic management systems were optimized.

Market-based measures

IATA is confident that technology, operations and infrastructure measures are the long-term solution for aviation's sustainable growth. However, due to the time required for new technologies and infrastructure to come on-stream, IATA recognizes that market-based measures may be needed in the interim. Market-based measures for aviation should therefore be considered as a part of the broader package of measures to address aviation's CO₂ emissions.

Market-based measures applied to aviation must be global in scope, minimize competitive distortions, be administratively simple, and allow open access to carbon markets. With many airlines flying daily to over one hundred countries, the multiplication of regional and national measures will result in an unsustainable



patchwork of requirements, with increased administrative complexity, costs and market distortions.

In the absence of a global solution to aviation's emissions, the air transport industry will continue to be exposed to the consequences of uncoordinated policy measures. Already today, it is estimated that \$7 billion in 'environmental' charges are levied on the industry, out of a total of around \$12 billion in charges and taxes related to fuel uplift or emissions. In contrast, the implementation of a single global market-based measure would rationalize administrative and reporting requirements and be much more environmentally and economically effective.

IATA's 69th Annual General Meeting (AGM) adopted a resolution which provides governments with a set of principles on how they could:

- establish procedures for a single global market-based measure (MBM)
- integrate a single global MBM as part of an overall package of measures to achieve CNG2020

Taxes and Charges

The environmental benefit from taxes and charges is very uncertain. In particular, by taking away funds from airlines, taxes and charges do not incentivize investment in new technology but, on the contrary, weaken the ability of the sector to dedicate resources to newer, cleaner equipment. Moreover, as they seek to lower emissions through a reduction in demand for air transport services, they undermine aviation's socio-economic benefits and its key role for trade and tourism.

Although international air services are exempt from fuel taxes under the Chicago Convention, air transport more than pays its way by entirely financing its own infrastructure.