【欧州】【航空】

Environmental issues: European Aviation Environmental Report (EAER) 2019 points out continued environmental challenges in the aviation sector due to increased air traffic volumes

Andrea Antolini Former Researcher JTTRI

【概要：Summary】

The global air traffic volume is expected to further increase in the next decades. While aviation has produced economic benefits and improved connectivity also within Europe, the sector's growth has a negative impact on the environment and worsens climate change, noise and air quality. Its environmental impact regarding GHG emissions, local air pollution and total number of people affected by noise is expected to further increase. On 24 January 2019, the European Commissioner for Transport Violeta Bulc received the European Aviation Environment Report 2019 (EAER), which has been prepared and published by the European Aviation Safety Agency (EASA), in cooperation with the European Environment Agency (EEA) and EUROCONTROL.

The second ESER shows the overall environmental performance of the aviation sector and confirms that the improvement of technology, more efficient operations, better airports and market-based measures have not been enough to mitigate the aviation sector's impacts on the environment, climate and people's health due to the increases in air traffic volumes. Without more emission reduction efforts the impact of the aviation sector on the environment will still worsen. More political action and investment is needed in order to decrease the aviation industry's emission and noise, otherwise the environmental impact will simply continue to grow, due to the overall increase of air traffic.

【記事：Article】

The first European Aviation Environmental Report (EAER) was published in 2016. The recently published 2nd EAER report aims at providing an objective, scientific and comprehensive overview and provides an updated assessment of the 2016 report's environmental performance of the aviation sector. The 2nd EAER report includes key performance indicators, showing the evolution of noise, GHG emissions and air pollution from aviation and provides an indication of future levels of noise and emissions, according to different scenarios, and depending on the progress achieved through technology deployment. The 2nd EAER report assesses the historic and forecasted environmental performance of the European aviation sector, including the latest information on various mitigation measures to reduce the environmental impact of aviation. The 2nd EAER report reveals that the solutions currently deployed at EU level are enabling improvements to the sustainability of aviation in Europe, namely in terms of noise per flight or fuel consumption per passenger. While the 2nd EAER gives also an overview on the progress achieved, it points out where improvements of the environmental performance of the European aviation sector are necessary. Although the amount of noise pollution generated by individual flights is

decreasing, the sheer number of planes means that the overall environmental impacts from aviation have increased by 10% for CO2, 12% for NOx and 14% for noise since 2014.

In 2018, air traffic across Europe, including the EU Member States and 12 other countries grew by 3.8%. However, CO2 emissions even grew more by 5.2%. Regarding a traffic forecast, existing environmental impact mitigation measures seem to be insufficient to counterbalance the increasing environmental impacts of the increased number of flights in Europe. Consequently, the aviation sector's CO2 emissions are predicted to increase again by at least 21% and NOx emissions by 16% until 2040.

Although sustainable aviation fuels have the potential to make an important contribution to mitigating the current and expected future environmental impacts of aviation, their use is currently minimal. They are also expected to remain limited in the short term. There is interest in "electrofuels", which potentially constitute zero-emission alternative fuels. However, there only exist few demonstrator projects due to high production costs. The EU could potentially increase its bio-based aviation fuel production capacity, but the uptake by airlines remains minimal due to various factors, including the cost relative to conventional aviation fuel and low priority in most national bioenergy policies. Other measures like the introduction of Free Route Airspace has saved more than 2.6 million tonnes of CO2 since 2014 (approximately 0.5% of total aviation CO2 emissions). Continuous descent operations have also potential for reducing both, noise and CO2 emissions. However, the full potential from operational initiatives is not always achieved due to conflicting air navigation and safety requirements.

Therefore, the aviation sector's contribution to mitigate its impact on climate change will need to significantly increase as well as investments in solutions towards the decarbonisation of aviation. The 2nd EAER report underlines the necessity of agreeing on more effective measures for international aviation to tackle climate change. It has to better contribute towards the Paris Agreement's targets, because if the increasing levels of GHG emissions are not addressed by countermeasures, the aviation sector's GHG emissions could undermine efforts to mitigate climate change. The EAER report also warns that new technologies like supersonic and urban mobility aircraft "need to be carefully integrated into the aviation system" in order to avoid a negative impact on environmental progress. However, the report also mentions some measures to improve the situation like the support for new fuels, better fuel consumption and using sustainable fuels, although the costs and the limited availability remain a problem.

Finally, the aviation sector's future relationship with the EU-ETS is not totally clear. The ICAO's global carbon offset scheme CORSIA will come into full effect only at the end of the next decade and the European Commission still has to assess how to properly implement CORSIA in the EU.

Concluding, the second EAER points to the increasing emissions and noise pollution levels in the aviation sector, arising both from increased air traffic. Current efforts to reduce GHG emission and other air pollution prove to be insufficient to keep pace with the further increase of air traffic emissions. Therefore, in order to contribute to climate change mitigation, the aviation industry will have to take more concrete and effective action to reduce aviation emissions over the next decades. Furthermore, the Commission is expected to do an in-depth assessment about one year after CORSIA rules are applied, and it will take into account the EU's 2050 climate strategy. While the EU-ETS will continue to apply for the time being, the EU intends to fully implement CORSIA from the start of the pilot phase, provided that certain conditions are met, notably on the environmental integrity of the scheme and global participation. The third EAER is planned for publication in 2022.

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