

Common - Follow-up Post Paris Agreement relevant to aviation/Aviation - Gas emissions: CORSIA's constraints, considerations on the EU-ETS for aviation and IATA's initiative to establish an Aviation Carbon Exchange

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【概要 : Summary】

In the global aviation sector, one of the main problems to reducing the CO₂ emissions is the lack of an abundant number of choices of alternative fuels and propulsion systems to replace the currently used fossil fuel-based systems. The ICAO's Carbon Offset and Reduction Scheme for International Aviation (CORSIA) to reduce CO₂ emissions in aviation at global level is considered being too weak to significantly cut the aviation sector's CO₂ emissions as it probably will only achieve a carbon natural growth (CNG) in the 2020–2035 period. In particular, CORSIA is criticised for the possible lack of high-quality carbon offsets and it is only seen as a starting point to a really significant long-term reduction of global aviation's GHG emissions.

Nevertheless, being the only available global measure to mitigate CO₂ emissions from aviation, the airlines' international trade association, International Air Transport Association (IATA), intends to improve the carbon exchange for airlines and has announced to commence a partnership with CBL Markets in order to develop an airlines' carbon exchange for emission units under the CORSIA scheme.

【記事 : Article】

1. The increase of GHG emissions in aviation

According to the European Environment Agency (EEA)'s 2019 European Aviation Environmental Report, based on Intergovernmental Panel on Climate Change (IPCC) figures, the direct CO₂ emissions from aviation account to around 2% to 3% of global energy-related CO₂ emissions. By 2020, global international aviation emissions are expected to be around 70% higher than they were in 2005.

Although CO₂ emissions are supposed to decline in line with global climate goals, aviation emissions have still increased by 26% since 2013. Furthermore, the sector's growth is continuing, with passenger numbers projected to double to 8.2 billion by 2037. Forecasted improvements in aircraft fuel efficiency of around 1–2% per year are considered being too small to offset the expected growth in emissions. Moreover, depending on efficiency improvements and new technologies regarding supersonic jets or urban mobility aircrafts, the aviation sector's GHG emissions could even further increase.

2. The ICAO's CORSIA scheme's constraints

Since the aviation sector is excluded from the 2015 Paris Agreement, the International Civil Aviation Organisation (ICAO) is responsible for taking measures to introduce regulations for reducing GHG emissions in the international aviation sector. The

CORSIA scheme is scheduled to start in 2021 with a first voluntary pilot phase, followed by the voluntary first phase from 2024 to 2027. Instead, the reporting stage, which started in 2019, is mandatory for all airlines and business aircraft operators in those ICAO member states that have decided to join CORSIA at whatever stage. It is a baseline of CO₂ emissions for airlines for the CORSIA scheme from which growth can be measured. The baseline from January 2021 will be calculated as the average of 2019 and 2020 emissions. From 2027 to 2035, the mandatory second phase will follow for most ICAO member states, with only exemptions for some small emitters. In 2032, the ICAO will review the CORSIA scheme and decide on the further way forward for the period after 2035.

As of mid-January 2020, 79 countries, including the US, Australia, Canada, Saudi Arabia, Japan, the UK and EU Member States, representing three-quarters of international flights have volunteered to participate in this initial pilot phase as of 2021. From 2021, airlines will need to start offsetting the growth in emissions from the routes between states, which have volunteered to participate in CORSIA's pilot phase.

The CORSIA scheme will allow airlines to offset their growing CO₂ emissions by using carbon saving projects outside the aviation industry. In this system, the CO₂ emissions from international flights are to be offset by project credits (so-called offsets) and emission allowances from emissions trading systems. Buying an offset means buying a credit that has been verified as having reduced CO₂ emissions elsewhere.

According to the International Council on Clean Transportation (ICCT), the CORSIA scheme and its offsets could achieve a modest reduction of the net climate impact of international aviation up to 2035, but only if high-quality offsets are used and those offsets are not double counted. It is criticised that the CORSIA scheme could in fact lead to an increase of CO₂ emissions as it would allow airlines to increase their GHG emissions while offsetting

them with inadequate and cheap carbon offsets. Under CORSIA, airlines will have to purchase internationally recognised carbon offsets, which must have been recognised by the ICAO as adequate offsets. The double counting of carbon offsets needs to be avoided. The avoidance of double counting means that an airline should not be able to offset its CO₂ emissions by using the same emission reduction measure that a country uses for meeting its own obligations under the Paris agreement. The key to avoiding this "double-counting" would be that countries, where the airlines' emission reduction takes place, commit to not count these emission reductions towards their own targets. However, in particular Brazil has rejected to avoid this double counting.

The impact CORSIA will have on mitigating climate change will rest on the environmental effectiveness of the offsets used. However, an assessment of offsetting to date will be difficult, because it will be challenging to prove if the carbon mitigation projects' CO₂ emission reduction has been correctly estimated, among others.

On the other hand, the aviation industry are concerned that the implementation and effectiveness of the ICAO CORSIA carbon-offsetting scheme could be undermined by states or groups of States applying carbon pricing instruments or taxes to international flights in addition to the CORSIA scheme. On the other hand, the NGOs called on the EU not to weaken the existing rules under the EU-ETS for aviation and to avoid any step back in emission reduction targets.

3. The EU Member States' considerations to take further CO₂ emission reduction measures

Under the EU's CO₂ emission reduction measure EU-ETS for aviation, intra-EEA flights are covered and the system should lead to a reduction of CO₂ emissions in aviation. Based on the Directive 2008/101/EC on reducing GHG emissions from aviation, the EU-ETS for aviation covers the CO₂ emissions of about 1400 aircraft operators operating intra-European flights within the European Economic Area

(EEA). However, the airlines flying in the EU still receive a large number of pollution permits for free. This fact does not help to accelerate the airlines' initiatives to reduce their GHG emissions. The low price for allowances does not incentivise the airlines to reduce their GHG emissions, and therefore, some European governments are preparing or have already introduced passenger charges intended as "green" taxes. The Dutch government has taken the initiative in the EU to start a political incentive and discussion of the possibilities to introduce carbon pricing and aviation taxes including a tax on kerosene in the EU. A possible introduction of taxes on kerosene and air tickets are considered as meaningful measures towards achieving the EU's target of reaching carbon neutrality by 2050.

Regarding the EU's further way forward, a potential new controversy with the ICAO on the CORSIA scheme could arise, due to the introduction of the exclusivity clause in favour of the CORSIA scheme. This exclusivity clause in favour of the CORSIA scheme would basically require the abolition of the EU-ETS for aviation. However, while the EU-ETS for aviation is projected to reduce emissions towards the EU's target, the CORSIA scheme would allow airlines to purchase carbon offsets to reduce emissions elsewhere while maintaining their own high emissions in their countries of origin. This could lead to an increase of the GHG emissions in the EU's aviation sector, as the air traffic continues to further increase.

Instead, the airlines and the aviation industry are supporting the CORSIA scheme and the approach to make it the only emission mitigation measure for the global aviation industry, also by enforcing an exclusivity clause and thereby ousting the EU-ETS. Environmental institutions support the continuation of the EU-ETS for aviation as the more efficient measure to reduce GHG emissions from aviation. So far, the European institutions have not definitely decided whether to abolish or continue the EU-ETS for aviation beyond 2021. The European Commission

will have to assess the CORSIA's effectiveness before the legislation to implement CORSIA into EU law is prepared. It will be of high importance to compare the CORSIA's potential environmental effectiveness against the EU's climate legislation and targets, including the EU-ETS for aviation. The EU will consider further measures for tackling CO₂ emissions from aviation until the ICAO's CORSIA scheme can be evaluated after its launch in 2021.

4. IATA's initiative to develop an airlines' carbon exchange for emission units under the CORSIA scheme

Due to the fact, that the Swedish phenomenon of "flygskam" or "flight shame", a campaign to dissuading people from flying has been showing some effect, IATA's Director General Alexandre de Juniac has urged airlines to increase transparency and explain more forcefully their environmental achievements. In this context it is also important to increase the transparency regarding the "offset arrangements" under the CORSIA scheme.

Meanwhile, the global airlines' trade association IATA has stated that according to the latest half-yearly industry outlook, the rate of growth in carbon emissions has slowed down in 2019. This is based on a lower growth in capacity while at the same time improvements in fuel efficiency were achieved. According to IATA estimates, fuel consumption and CO₂ emissions from aviation had risen by around 5% per year in recent years. IATA found that the carbon emissions in 2019 stood at 915 million tonnes (Mt) compared to 905 Mt in 2018. This represents a significant slow down in the rise of CO₂ emissions from aviation in 2019 by 1.1% only, compared to the 5% per year in recent years. Furthermore, IATA expects that the aviation industry's fuel efficiency will improve by 2.1% in 2020, in terms of capacity use, up from an anticipated 1.9% in 2019. This is considered being a result of the growth in new aircraft deliveries and de Juniac also emphasised that it was critical to decouple the growth in air travel from the carbon

emissions.

Furthermore, IATA intends to improve the carbon exchange for airlines and announced a partnership with CBL Markets, in order to assist airlines in their upcoming CORSIA compliance for ensuring they will invest in eligible carbon credits. As soon as ICAO will publish a list of credits accepted under the CORSIA scheme, those credits will be listed on an exchange. According to IATA Director for Aviation Environment, Michael Gill, trialling begins in the first quarter of 2020 with interested airlines.

On 30 January 2020, the Xpansiv CBL Holding Group (XCHG) and IATA announced their new partnership to develop the Aviation Carbon Exchange (ACE). This new ACE should become an innovative way for airlines to meet their emissions-reduction commitments based on the CORSIA scheme. Within CBL Markets, ACE will serve as a centralized marketplace for CORSIA eligible emission units, once ICAO has published CORSIA's eligible emission units. It is intended to offer accessible real time data for airlines with full price transparency. Starting with a trial in the first quarter of 2020, CBL Markets and IATA plan to initiate the offer to airlines that want to start offsetting voluntary credits as a pilot phase. ACE trading will be supported by the IATA Settlement System and Clearing House, and offered to IATA and non-IATA airlines, according to IATA.

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