

METRICS FOR SUSTAINABLE AVIATION FINANCE

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ABSTRACT

Aviation generates 2-3% of global emissions and if business continues as usual is on course to produce double these emissions by 2037. Airlines, aircraft and engine manufacturers are under increasing pressure to reduce its contribution to global warming and decarbonize operations in a bid to offset passenger growth. The industry has been working on the four pillars of sustainability goals, namely, Sustainable Aviation Fuels (SAF), New Technology and Design, Carbon Offsets and Reduction, and improved operations and Infrastructure. Further sustainability innovation in the aircraft finance world is gaining momentum with airlines and lessors issuing sustainability-linked securities or the so-called green bonds. While there is a consensus that Environment, Social and Governance (ESG) compliant financing enjoys more investor appetite, there is increasing debate centered on whether and which financing qualifies as green or sustainable. This paper discusses the steps undertaken by the aviation industry to move towards sustainable aviation, current challenges faced by the industry, financial resources available to achieve its goal, and the methodology to score airlines to determine if they qualify to raise sustainable finance.

Keywords: Sustainability, Aviation, Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), Emission Trading System (ETS), Carbon offsets, Sustainable Aviation Fuel (SAF), biofuels, ICAO, IATA.

1. INTRODUCTION

Aviation generates 2-3% of global emissions and if business continues as usual is on course to produce double these emissions by 2037 (Boon, 2021). The industry is under increasing pressure to reduce its contribution to global warming and decarbonize operations in a bid to offset passenger growth. The International Air Transport Association (IATA) 77th Annual General Meeting approved a resolution for the global air transport industry to achieve net-zero carbon emissions by 2050 (IATA 2021). The industry has been working on the four pillars of sustainability goals, namely, new technology and design, sustainable aviation fuels (SAF), carbon offsets and reduction, improved operations and Infrastructure. The current crop of aircraft has made extreme leaps in terms of safety and efficiency when compared to those at the start of the jet age. SAFs are set to be key contributors towards reduction in greenhouse gases but the infrastructure is not expected to be able to keep up with the level of demand the aviation industry will generate. Aviation is getting little investment from government bodies to develop such fuels. Airlines are therefore investing heavily in SAF in order to secure access to low carbon fuels and ensure there are adequate volumes available to Industry. With more stringent environmental regulations and market based measures imposed on aviation such as Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) and the European Union Emission Trading Scheme it is important to look how these measures have performed.

Sustainability innovation in the aircraft finance world is gaining momentum with airlines and lessors issuing sustainability-linked bonds or the so-called green bonds. While there is a consensus that Environment, Social and Governance (ESG) compliant financing enjoys more investor appetite, there is increasing debate centered on whether and which financing qualifies as green or sustainable (ISHKA, April 6, 2022). Tied to these debates are the quest to define ESG key performance indicators (KPIs). Recent research by Serafeim and Yoon (2022) using a predictive model based on existing ESG ratings found that market reacts to unexpected news and investors are motivated by financial rather than