



**WORKING PAPER**

**ASSEMBLY — 41ST SESSION**

**EXECUTIVE COMMITTEE**

**Agenda Item 17: Environmental Protection – International Aviation and Climate Change**

**Agenda Item 18: Environmental Protection – Carbon Offsetting and Reduction Scheme for International Aviation (CORSA)**

**VIEWS FROM INTERNATIONAL AVIATION CLIMATE AMBITION COALITION  
MEMBERS ON LTAG AND CORSA**

(Presented by Austria, Canada, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Japan, Kenya, Malta, Mexico, Netherlands, Norway, Poland, Republic of Korea, Rwanda, Slovenia, Spain, Sweden, Switzerland, Türkiye, United Kingdom and the United States)

**EXECUTIVE SUMMARY**

Given the global nature of the sector, international cooperation and action on tackling aviation emissions is crucial to successfully reduce the aviation sector's contribution to climate change. The co-authors of this paper applaud the progress that was made at the High-level Meeting on the feasibility of a long-term aspirational goal for international aviation CO<sub>2</sub> emissions reductions (HLM-LTAG), and strongly welcome the reference to the net-zero carbon emissions by 2050 goal in the conclusions, which creates an excellent basis for establishing such a goal during the forthcoming Assembly. As we move towards agreeing, and then achieving an ambitious emissions reduction goal for the sector, the availability of and access to funding, capacity building, and training will be critical to ensure that no country is left behind in the overall decarbonisation of aviation. To ensure CORSA's continued credibility and the positive reputation of ICAO and its flagship climate scheme globally, the co-authors encourage the Assembly to seek to maximise the environmental ambition of CORSA, while carefully balancing ambition and practicality so as not to overburden the aviation industry, which is still recovering from the COVID-19 pandemic.

**Action:** The Assembly is invited to:

- a) agree to work together to strive to achieve a collective long-term global aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050, in support of the Paris Agreement's temperature goal;
- b) agree on the importance of capacity-building and facilitating access to financing efforts to help all ICAO States achieve an ambitious LTAG for international aviation, including exploring possible mechanisms to support matching investors with investment needs; and
- c) encourage the Assembly to maximise the environmental ambition of CORSA and avoid making broader changes to its design, while encouraging States that have not yet joined CORSA to voluntarily join.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective – <i>Environmental Protection</i>
<i>Financial implications:</i>	N/A
<i>References:</i>	Annex 16 — <i>Environmental Protection</i> , Volume IV — <i>Carbon Offsetting and Reduction Scheme for International Aviation (CORSA)</i> ICAO Doc 10178, <i>Report of the High-Level Meeting on the Feasibility of a Long-Term Aspirational Goal for International Aviation CO<sub>2</sub> Emissions Reductions</i>

## 1. INTRODUCTION

1.1 The International Aviation Climate Ambition Coalition (IACAC) was launched last year at the COP26 climate change summit in Glasgow. The Coalition is an open group that welcomes any ICAO Member State that supports its goals and commitments. Members of the Coalition have committed to working together to advance ambitious actions to reduce aviation CO<sub>2</sub> emissions at a rate consistent with efforts to limit the global average temperature increase to 1.5°C, including: supporting the adoption of an ambitious global goal for international aviation CO<sub>2</sub> emissions; ensuring the maximum effectiveness of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSA); promoting the development and deployment of sustainable aviation fuels (SAFs); and promoting the development and deployment of new aircraft technologies, as well as more environment-friendly operations.<sup>1</sup>

1.2 Given the global nature of the sector, international cooperation and action on tackling aviation emissions is crucial to successfully reduce the aviation sector’s contribution to climate change. Climate ambition from the sector is necessary to preserve aviation’s capacity to sustainably grow. Climate ambition will also protect States at greatest risk from climate change (which are often disproportionately dependent on aviation for their connectivity) and preserve vulnerable aviation infrastructure from climate impacts. As we move towards agreeing, and then achieving an ambitious emissions reduction goal for the sector, the availability of and access to funding, capacity building, and training will be critical. This is fundamental to ensure that no country is left behind in the overall decarbonisation of aviation.

## 2. LONG-TERM ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION

2.1 The co-authors of this paper applaud the progress that was made at the LTAG High-level Meeting and strongly welcome the reference to the net-zero carbon emissions by 2050 goal included in the conclusions, which creates an excellent basis for establishing such a goal during the forthcoming 41st Session of the Assembly. The co-authors recall the Paris Agreement’s long-term temperature goal of holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C. Achieving net-zero global greenhouse gas emissions by 2050 will maximise the possibility of keeping the global average temperature increase below 1.5°C.

2.2 As such, it is critical that ICAO and its Member States work with relevant organizations on the elements of the basket of measures and strive to achieve the maximum possible in-sector reductions from technology, operations, and fuels. In particular, SAF will be key to ensuring that the industry can meet the net-zero target. As a nascent sector, SAF development and deployment will need a lot of support through international, regional and national measures. The co-authors of this paper welcome the organization of the Third ICAO Conference on Aviation and Alternative Fuels (CAAF/3) in 2023 to define a global framework

<sup>1</sup> IACAC Declaration (<https://www.gov.uk/government/publications/cop-26-declaration-international-aviation-climate-ambition-coalition>). States wishing to join the Coalition can do so by contacting the U.K. through IACAC@dft.gov.uk.

for SAFs. States should promote the development and deployment of SAFs that reduce lifecycle emissions, and that contribute to the achievement of the UN Sustainable Development Goals (SDGs). The co-authors suggest a focus on SAFs that avoids competition with food production for land use and water supply, and with accurate quantification of sequestration from outside the sector on net reductions.

2.3 CORSIA will contribute to incentivising the use of SAFs as it simultaneously creates demand for the fuels and provides a set of sustainability criteria to ensure that actual reductions are achieved. In addition, CORSIA's monitoring, reporting, and verification process provides a globally-harmonised method for tracking SAF use. Out-of-sector reductions, for which CORSIA is just one possible approach, will be necessary to meet a net-zero 2050 target effectively and efficiently.

### **3. SUPPORTING STATES THROUGH FACILITATING ACCESS TO FINANCE, CAPACITY BUILDING, AND TRAINING**

3.1 States, in particular small island developing States, land-locked developing States, and least developed countries, will need help and support to ensure that every State can meaningfully participate in the aviation sector's transition toward decarbonisation. ICAO can assist by facilitating access to finance, capacity building, and training. This is essential to ensure that no country is left behind in the aviation sector's transition to net-zero. Capacity building is paramount to ensuring that no State is left behind, and members of IACAC have already committed to promoting capacity building support for the implementation of CORSIA and other ICAO climate measures. We therefore welcome the existing Assistance, Capacity-building and Training for CORSIA (ACT-CORSIA) programme and the recent launch of ACT-SAF. We fully support efforts by ICAO and its Member States to further enhance capacity building support for the implementation of the full basket of measures.

3.2 Achieving a truly ambitious LTAG will also require mobilising private investments into projects, programmes, and initiatives that contribute towards the decarbonisation of civil aviation. This funding is essential to accelerate innovation and promote the development of more efficient and less polluting aircraft, ultimately leading to the production of zero CO<sub>2</sub> emissions aircraft, which will dramatically improve the environmental performance of each flight, and also for the necessary development of the infrastructure needed to operate these innovative aircraft designs, and the infrastructure for effective SAF development and deployment across all regions. ICAO can play an important role by establishing and supporting the dialogue between States, donors, the international investment community, and industry, as well as by exploring possible mechanisms that will support matching potential investors with investment needs in Member States to increase the pace of decarbonisation globally.

3.3 A wide number of funding opportunities through multiple organizations are already available. The Appendix provides the results of a first compilation of resources that already exist and can be built upon by any new ICAO initiative. The ICAO Voluntary Environment Fund should also be made more visible, and States should be encouraged to contribute to it, while earmarking contributions for specific ICAO activities to reduce emissions. Finally, other capacity building and support activities should be undertaken jointly between States in the context of cooperation programmes, technical assistance, and similar activities.

### **4. ACTION PLANS AND MONITORING**

4.1 It is critical that all Member States develop and update their national State Action Plans (SAPs) on CO<sub>2</sub> emission reduction in the aviation sector that set out their respective actions, roadmaps and assistance needs. These SAPs are an important means of monitoring bottom-up progress towards achievement of an LTAG. In addition to monitoring State progress through SAPs, ICAO will also need to track global progress towards the achievement of the LTAG. A cornerstone of this effort is the compilation

of emissions data obtained through CORSIA's Monitoring, Reporting, and Verification. Further, ICAO's efforts should include tracking key metrics of success such as overall efficiency improvements, new technologies, and SAF feedstock qualification and volumes. Different means of monitoring will be appropriate for different areas (e.g. the ICAO environment stocktaking process and SAPs will be key sources of information on new developments). Monitoring effectiveness of activities under ICAO's supporting initiatives will also be key.

## 5. **CORSIA**

5.1 CORSIA is currently the most important global measure addressing international aviation emissions. Due to the international traffic reductions caused by the ongoing COVID-19 pandemic, however, no operator has yet been required to purchase carbon credits or CORSIA eligible fuels to meet obligations. To ensure CORSIA's continued credibility and strengthen the positive reputation of ICAO and its flagship climate scheme globally, the co-authors encourage the Assembly to seek to maximise the environmental ambition of CORSIA, while carefully balancing ambition and practicality so as not to overburden the aviation industry, which is still recovering from the COVID-19 pandemic. The co-authors underscore the need to maintain the integrity and ambition of the scheme and to prevent any need for rolling changes as market conditions and expectations continue to change over time, as such changes could destabilize the sustainable aviation fuel and carbon offset markets necessary for CORSIA's success.

5.2 Welcoming that 115 States worldwide have now committed to participate in CORSIA offsetting from 2023, the co-authors further encourage States to work together through ACT-CORSIA to increase participation in the scheme and to build implementation capacity. ICAO Member States are further encouraged to work towards implementing Annex 16, Volume IV of the Chicago Convention domestically as fully as possible and in a timely manner, including measures to avoid any double counting of the mitigation reported under CORSIA, for both emission units and CORSIA eligible fuels. In certain cases, this may require the application of corresponding adjustments to reported emissions levels covered by Nationally Determined Contributions (NDCs) under the Paris Agreement, in accordance with the guidance finalised at COP26. IACAC members also call upon States that have not yet volunteered to participate in CORSIA to consider doing so as soon as feasible.

## 6. **ACTIONS BY THE ASSEMBLY**

6.1 The Assembly is invited to:

- a) agree to work together to strive to achieve a collective long-term global aspirational goal (LTAG) for international aviation of net-zero carbon emissions by 2050, in support of the Paris Agreement's temperature goal;
- b) agree on the importance of capacity-building and facilitating access to financing efforts to help all ICAO States achieve an ambitious LTAG for international aviation, including exploring possible mechanisms to support matching investors with investment needs; and
- c) encourage the Assembly to maximise the environmental ambition of CORSIA and avoid making broader changes to its design, while encouraging States that have not yet joined CORSIA to voluntarily join.

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## APPENDIX

### DIRECTORY OF PUBLIC FINANCING PROGRAMMES FOR MITIGATING AVIATION EMISSIONS

#### I. CLEAN TECHNOLOGY FUND (CTF)

ADMINISTERED BY THE CLIMATE INVESTMENT FUND AT THE WORLD BANK

##### PURPOSE

Increase the development of low carbon technologies including renewable energy.

##### FUNDING TYPES

Financing, senior loans, convertible grants/contingent recovery grants, equity, local currency swaps and guarantees, contingent recovery loans, subordinated debt, plus technical assistance and capacity building.

##### WEBSITE

[www.climateinvestmentfunds.org/fund/clean-technology-fund](http://www.climateinvestmentfunds.org/fund/clean-technology-fund)

#### II. SCALING UP RENEWABLE ENERGY IN LOW INCOME COUNTRIES (SREP)

ADMINISTERED BY THE CLIMATE INVESTMENT FUND AT THE WORLD BANK

##### PURPOSE

Increase the development of renewable energy in developing countries.

##### FUNDING TYPES

Concessional Financing, senior loans, convertible grants/contingent recovery grants, equity, local currency swaps and guarantees, contingent recovery loans, subordinated debt, plus technical assistance and capacity building.

##### WEBSITE

[www.climateinvestmentfunds.org/fund/scaling-renewable-energy-program](http://www.climateinvestmentfunds.org/fund/scaling-renewable-energy-program)

#### III. GLOBAL ENERGY EFFICIENCY AND RENEWABLE ENERGY FUND (GEEREF)

ADMINISTERED BY GEEREF WITH SUPPORT FROM THE EUROPEAN INVESTMENT BANK

##### GROUP

##### PURPOSE

Provide attractive, low risk financial investments that will produce economic, environmental, and social benefits.

##### FUNDING TYPES

Invests public and private risk capital in private equity funds, which provide equity financing for small and medium sized renewable energy and energy efficiency projects in emerging economies.

##### WEBSITE

[geeref.com](http://geeref.com)

#### IV. THE GLOBAL ENVIRONMENT FACILITY (GEF)

ADMINISTERED BY THE GEF

##### PURPOSE

To help developing countries and countries with economies in transition to meet the objectives of international environmental conventions and agreements.

##### FUNDING TYPES

Multilateral grants, contingent loans, loan to grant, mitigate technology specific risks, microfinancing for residences.

##### WEBSITE

[www.thegef.org](http://www.thegef.org)

V. GREEN CLIMATE FUND (GCF)  
ADMINISTERED BY THE GCF BOARD UNDER THE UNFCCC, WITH SUPPORT FROM THE  
WORLD BANK

PURPOSE

To advance the goal of keeping the temperature increase on earth below two degrees Celsius by investing into low-emission and climate-resilient development.

FUNDING TYPES

Variety of financial instruments available, including grants, concessional loans, subordinated debt, equity, and guarantees, giving flexibility to match project needs. Risk-bearing capacity, allowing the Fund to support innovation and leverage and crowd in additional financing.

WEBSITE

[www.greenclimate.fund](http://www.greenclimate.fund)

VI. GLOBAL CLIMATE CHANGE ALLIANCE (GCCA)  
ADMINISTERED BY THE EUROPEAN COMMISSION UNDER THE EUROPEAN UNION (EU)

PURPOSE

To help the most vulnerable and least developed countries address climate change through support of their national programmes.

FUNDING TYPES

National budget support with funds sent directly to the country in tranches with supplemental funds delivered on completion of first programme.

WEBSITE

[www.gcca.eu](http://www.gcca.eu)

VII. NEIGHBORHOOD, DEVELOPMENT AND INTERNATIONAL COOPERATION  
INSTRUMENT (NDICI)  
ADMINISTERED BY THE EUROPEAN COMMISSION UNDER THE EUROPEAN UNION

PURPOSE

To support EU Development Policy and "Agenda for Change" including sustainability goals.

FUNDING TYPES

Grants to organizations or projects being developed by them. Contracts through tendering process for goods and services. Budget support to countries through financial transfers to national treasuries. Funding directly to specific in-country sectors.

WEBSITE

<https://ec.europa.eu/international-partnerships/global-europe>

VIII. PILOT AUCTION FACILITY FOR METHANE AND CLIMATE MITIGATION (PAF)  
ADMINISTERED BY THE WORLD BANK WITH FUNDING FROM THE GOVERNMENTS OF  
GERMANY, SWEDEN, SWITZERLAND, AND THE UNITED STATES

PURPOSE

To support a market for carbon credits.

FUNDING TYPES

Grants to organizations or projects being developed by them. Contracts through tendering process for goods and services. Budget support to countries through financial transfers to national treasuries. Funding directly to specific in-country sectors.

WEBSITE

<https://www.pilotauctionfacility.org/>

IX. AFRICA CLIMATE CHANGE FUND (ACCF)  
ADMINISTERED BY THE AFRICAN DEVELOPMENT BANK, FINANCED BY VARIOUS  
CLIMATE FUNDS AND DONOR COUNTRIES  
PURPOSE

To support low carbon development and climate resiliency.

FUNDING TYPES

Grants for capacity building, strategic planning, policy development, project implementation.

WEBSITE

[www.afdb.org/en/topics-and-sectors/initiatives-partnerships/africa-climate-change-fund/](http://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/africa-climate-change-fund/)

X. SUSTAINABLE ENERGY FUND FOR AFRICA (SEFA)  
ADMINISTERED BY THE AFRICAN DEVELOPMENT BANK, FINANCED BY THE  
GOVERNMENTS  
OF DENMARK AND THE  
UNITED STATES  
PURPOSE

To support private sector-led small and medium scale renewable energy development in Africa.

FUNDING TYPES

Grant funding to target renewable energy development from feasibility to financial close. Grants for technical

assistance and project preparation. Equity investments through the Africa Renewable Energy Fund, managed

by Berkeley Investments. Grants to fund public activities that enable private investments

WEBSITE

[www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa/](http://www.afdb.org/en/topics-and-sectors/initiatives-partnerships/sustainable-energy-fund-for-africa/)

XI. INTERNATIONAL CLIMATE FUND (ICF)  
ADMINISTERED BY THE GOVERNMENT OF THE UNITED KINGDOM  
PURPOSE

As the United Kingdom's primary source of climate finance, it funds existing multilateral and national programmes focused on supporting private sector innovation and public-private partnerships, including renewable energy development in Africa.

FUNDING TYPES

Project grants, investments in climate funds. Grants primarily provided for bilateral projects.

Concessional loans provided to multilateral programmes.

WEBSITE

[www.gov.uk/government/publications/international-climate-fund/international-climate-fund](http://www.gov.uk/government/publications/international-climate-fund/international-climate-fund)

XII. INTERNATIONAL CLIMATE INITIATIVE (IKI)  
ADMINISTERED BY THE GERMAN FEDERAL MINISTRY FOR THE ENVIRONMENT, NATURE  
CONSERVATION, BUILDING AND NUCLEAR SAFETY  
PURPOSE

To mitigate GHG emissions, adapt to climate change, conserve carbon sinks, and conserve biodiversity.

FUNDING TYPES

Grants to support policy advice, capacity building and appropriate training measures, and also technological lighthouse projects and technological cooperation scheme.

WEBSITE

[www.international-climate-initiative.com/en/](http://www.international-climate-initiative.com/en/)

**XIII. NAMA FACILITY  
ADMINISTERED BY THE NAMA BOARD AND IMPLEMENTED BY DEUTSCHE  
GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ) GMBH  
PURPOSE**

Implement ambitious mitigation projects in developing and emerging economies.

**FUNDING TYPES**

Funding for transformational changes in sector development driven by in-country planning and implementation.

**WEBSITE**

[www.nama-facility.org](http://www.nama-facility.org)

**XIV. GLOBAL CLIMATE PARTNERSHIP FUND (GCPF)  
ADMINISTERED BY THE INVESTMENT FIRM RESPONSIBILITY INVESTMENTS AG, AND  
FINANCED BY THE GOVERNMENTS OF DENMARK, GERMANY, AND THE UK, THE  
INTERNATIONAL FINANCE CORPORATION, THE DEVELOPMENT BANKS OF  
AUSTRIA AND THE NETHERLANDS, AND PRIVATE INVESTORS  
PURPOSE**

Use public funding to leverage private capital in order to mitigate climate change and drive sustainable growth in developing and emerging markets.

**FUNDING TYPES**

Dedicated funding to local institutions in the form of senior or subordinated debt; mid- to long-term financing with flexible schedules; direct financing for projects in the late stage of development through direct funding primarily in the form of senior debt; maturities of up to 10 years; equity or mezzanine debt, provided in smaller amounts where this strengthens the funding package.

**WEBSITE**

[www.gcpf.lu/investing-in-renewable-energy-and-energy-efficiency.html](http://www.gcpf.lu/investing-in-renewable-energy-and-energy-efficiency.html)

**XV. PRIVATE FINANCE ADVISORY NETWORK (PFAN) ADMINISTERED BY THE UNITED  
NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION AND THE RENEWABLE ENERGY  
AND ENERGY EFFICIENCY PARTNERSHIP  
PURPOSE**

Provide free business consulting services to early-stage clean energy development projects in emerging economies.

**FUNDING TYPES**

Free advisory services, networking to bring entrepreneurs in the developing world together with investors from the developed world.

**WEBSITE**

<https://pfan.net>

**XVI. UAE SOUTH PACIFIC PARTNERSHIP FUND (UAE-PPF)  
ADMINISTERED THE ABU DHABI FUND FOR DEVELOPMENT AND FINANCED BY THE  
GOVERNMENT OF THE UNITED ARAB EMIRATES  
PURPOSE**

To diversify energy mix and advance sustainability.

**FUNDING TYPES**

Grants and technical assistance.

**WEBSITE**

<http://www.masdar.ae>

**XVII. IRENA / ADFD PROJECT FACILITY**

ADMINISTERED THE INTERNATIONAL RENEWABLE ENERGY AGENCY (IRENA) AND FINANCED BY THE ABU DHABI FUND FOR DEVELOPMENT (ADFD)  
PURPOSE

To overcome financial barriers to clean energy development.

**FUNDING TYPES**

IRENA provides technical assistance and capacity building, ADFD provides concessionary loans.

**WEBSITE**

[adfd.irena.org](http://adfd.irena.org)

**XVIII. PACIFIC ENVIRONMENT COMMUNITY (PEC) FUND**

ADMINISTERED THE PACIFIC ISLAND FORUM SECRETARIAT PURPOSE

To install renewable energy and sea water desalination projects to solve energy and drinking water problems.

**FUNDING TYPES**

Grants for solar power generation systems and sea water desalination plants or a combination of both.

**WEBSITE**

[www.forumsec.org](http://www.forumsec.org)

**XIX. UAE-CARIBBEAN RENEWABLE ENERGY FUND**

ADMINISTERED THE ABU DHABI FUND FOR DEVELOPMENT AND FINANCED BY THE GOVERNMENT OF THE UNITED ARAB EMIRATES

**PURPOSE**

To diversify energy mix and advance sustainability.

**FUNDING TYPES**

Grants and technical assistance.

**WEBSITE**

<http://www.masdar.ae>

**XX. ADAPTATION, CLEAN ENERGY, AND SUSTAINABLE LANDSCAPES PROGRAMS**

ADMINISTERED BY THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Support plans and programmes to mitigate and adapt to climate change in developing countries.

**FUNDING TYPES**

Various measures from direct technical assistance, training, grant funding, and financial support through implementing partners.

**WEBSITE**

[www.usaid.gov/climate](http://www.usaid.gov/climate)