



**WORKING PAPER**

**HIGH LEVEL MEETING ON THE FEASIBILITY OF A LONG-TERM  
ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION CO<sub>2</sub> EMISSIONS  
REDUCTIONS (HLM-LTAG)**

**Montréal, 19 to 22 July 2022**

**Agenda Item 2: Means of implementation for a long-term global aspirational goal for international aviation**

**SUPPORTING STATES TO MOBILISE FINANCE IN PURSUIT OF AN AMBITIOUS  
LONG-TERM ASPIRATIONAL GOAL**

(Presented by Czechia on behalf of the European Union and its Member States<sup>1</sup> and the other Member States of the European Civil Aviation Conference<sup>2</sup>)

**SUMMARY**

The achievement of an ambitious long-term global aspirational goal for international aviation CO<sub>2</sub> emissions reductions (LTAG) will require various means of implementation, including investments to finance the necessary operational changes, technological improvements and greater uptake of sustainable aviation fuels that are needed to decarbonise air transport.

It is conceivable that a number of States, notably those that have a less mature aviation system, in particular developing States, will need help and support to bear related costs and to access the necessary funding. This is essential to ensure that no country is left behind in the environmental transition of aviation.

This paper lists possible avenues to support all States with adequate means of implementation for an ambitious LTAG and proposes actions to ensure they can be achieved.

Action by the Meeting is in paragraph 5.

**1. THE NECESSITY FOR ADEQUATE MEANS OF IMPLEMENTATION**

1.1 The LTAG report prepared by CAEP assessed costs and investments (e.g. non-recurring cost, fuel costs, capital expenditure) associated with LTAG scenarios to develop a total and temporal distribution of costs and investments across different groups of stakeholders.

1.2 Many costs and investments are expected to be borne by the aviation sector itself (e.g. aircraft and engine manufacturers, airlines, airports, fuel producers and air navigation system providers) and to some extent be reflected in prices paid for aviation services. The LTAG report highlights that in order to support aircraft technology developments in particular, States may need to invest in research and development. These costs and investments are explained and contextualised in the LTAG report.

<sup>1</sup> Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

<sup>2</sup> Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Georgia, Iceland, Moldova, Monaco, Montenegro, North Macedonia, Norway, San Marino, Serbia, Switzerland, Turkey, Ukraine and United Kingdom.

1.3 The States supporting this paper recognise that the implementation of a long-term aspirational goal for international aviation CO<sub>2</sub> emission reductions will require various means of implementation, including emission standards, market-based measures and assistance to developing countries to ensure access to finance to help addressing investment needs and other costs. Indeed, a key benefit anticipated from adopting an LTAG is to attract investment to the international aviation sector to reduce its CO<sub>2</sub> emissions.

1.4 Contributing to sustainable aviation and meeting the goal therefore implies that States must secure access to adequate means of implementation to support them in the achievement of an ambitious LTAG. This would include but not be limited to research and development programmes. Some countries are currently better endowed in this regard and other, less equipped countries, should be supported in their efforts, including via assistance in line with the *No Country Left Behind* initiative. The sharing of knowledge and technical support will enable business and revenue generating opportunities in new innovative markets, such as sustainable aviation fuels.

1.5 Decarbonisation of international civil aviation will also be dependent on the decarbonisation of the energy sector, and will need to consider other modes' and industries' own clean energy needs. At the same time, the energy transition also presents opportunities - green power and green fuels supply are a way to develop under-utilized land, to create jobs in different innovative activities everywhere on the planet. In this regard, developing countries have feedstock which constitutes real assets.

1.6 Investments and costs associated with meeting any goal need to be put into perspective (e.g. in relation to airline revenues in 2019 and up to 2050), while improved fuel efficiency will lead to cost savings. These costs should also be put into perspective with the cost of inaction, which may affect higher adaptation costs to address the consequences of climate change according to the findings by the IPCC.

1.7 State Action Plans are key for the implementation of an LTAG. Their role in addressing and reporting CO<sub>2</sub> emissions from international aviation should be enhanced, also as a means to identify gaps and any need for implementation support. The establishment by each State of a State Action Plan should be mandatory (by 2024) and its content should be robust with a view to achieving the LTAG.

## 2. ACCESS TO PUBLIC FUNDING FOR CLIMATE CHANGE MITIGATION

2.1 As set out in the Appendix to this paper, there are a multitude of sources for financial support for aviation emissions reduction for States to contribute to achieving an LTAG.

2.2 The guidance on financing aviation emissions reductions – produced by ICAO and the United Nations Development Programme (UNDP) assistance project (2015-2019) (HLM-LTAG-WP/6 refers) – contains a valuable resource for States in search of financial support, as it provides a directory of public financing programmes for mitigating aviation emissions.

2.3 An analysis of the available funds shows that a significant amount of financial resources are being directed toward programmes associated with climate change mitigation and that these programmes are closely tied to public climate financing through the United Nations, multinational development banks, non-governmental organizations, and various private partners and stakeholders.

2.4 The guidance examines grants, loans, bonds, guarantees and insurance as well as direct equity investment. It addresses multilateral climate funds, bilateral finance, multilateral and regional development banks, regional and national funds. It provides assistance on how to identify and access financing and covers renewable energy, energy efficiency, electrification and sustainable aviation fuels.

2.5 The directory of public financing programmes for mitigating aviation emissions includes 21 different programmes and can be found in the Appendix to this paper.

2.6 The implementation of an LTAG highlights the importance of maintaining, promoting and enhancing this guidance and the critical role that ICAO and climate financing countries can play in putting States in need of aviation climate finance in contact with relevant programmes and funding sources.

### **3. INCENTIVISING PRIVATE SECTOR INVESTMENTS IN SUPPORT OF LTAG**

3.1 Achieving an ambitious LTAG will also require mobilising private investments into projects, programmes and initiatives that contribute towards the decarbonisation of civil aviation.

3.2 This funding is essential to accelerate innovation and promote the development of more efficient and less polluting aircraft, ultimately leading to the production zero emissions aircraft, which will increase the environmental performance of each flight and reduce its impact on climate change.

3.3 Furthermore, such investments will be crucial to bring the production and uptake of sustainable aviation fuels to the levels that are necessary to achieve an ambitious LTAG. In view of the vast amount of a wider range of sustainable aviation fuels that will be needed in the coming decades, there is an enormous potential for economic development in this area, notably for many developing States. However, it can be difficult for those States, their companies and citizens to identify and access private sector investments that are necessary to develop their projects.

3.4 ICAO can play an important role by supporting the dialogue between States, donors, the international investment community and industry, and by exploring possible mechanisms that will support matching potential investors with investment needs in developing States in particular.

### **4. VOLUNTARY CONTRIBUTIONS AND CAPACITY BUILDING**

4.1 In addition, there is also a need for capacity building and voluntary contributions to support the necessary transition to decarbonised air transport.

4.2 In this regard, the States presenting this paper welcome the launch, on 1 June 2022, of the “ICAO Assistance, Capacity-building and Training for Sustainable Aviation Fuels programme” (ACT-SAF). States, international organisations and industry should all contribute to this programme. This is a first step towards the development of a broader programme relating to all aspects of an ambitious LTAG, once it has been approved.

4.3 Furthermore, the ICAO Voluntary Environment Fund should be more visible, and States should be encouraged to contribute to it, whilst earmarking contributions for specific ICAO activities on LTAG.

4.4 Finally, other capacity building and support activities can be undertaken on a bilateral basis in the context of cooperation programmes, technical assistance and similar activities.

### **5. ACTION BY THE HLM-LTAG**

5.1 The HLM-LTAG is invited to:

- a) agree on the importance of means of implementation and capacity building efforts in helping all ICAO States to achieve an ambitious LTAG for international aviation;
- b) request ICAO to undertake necessary actions to facilitate access of its contracting States to existing sources of financing that could support the achievement of an ambitious LTAG;
- c) invite ICAO to explore possible initiatives to incentivise private investment in actions that will contribute to the achievement of an ambitious LTAG; and
- d) call upon States and international organisations to provide voluntary contributions to ICAO in order to support an ambitious LTAG, in particular in the context of the “No Country Left Behind” initiative.

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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 programs.

**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 RESPONSABILITY 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. GLOBAL CLIMATE CHANGE INITIATIVE (GCCCI)**

ADMINISTERED BY THE US AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID)

**PURPOSE**

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

**FUNDING TYPES**

Various measures from direct technical assistance, grant funding, and financial supports through partner agencies.

**WEBSITE**

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

**XVI. 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**

[cti-pfan.net](http://cti-pfan.net)

**XVII. POWERING AGRICULTURE: AN ENERGY GRAND CHALLENGE FOR DEVELOPMENT**

ADMINISTERED BY THE US AGENCY FOR INTERNATIONAL DEVELOPMENT

**PURPOSE**

Support new and sustainable approaches to accelerate the development and deployment of clean energy solutions for increasing agriculture productivity and/or value in developing countries.

**FUNDING TYPES**

Grants, technical assistance to develop work plans, access to business technical firms and consultants, communication with investors, advisory services for business development and marketing.

**WEBSITE**

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

**XVIII. 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>

**XIX. 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)

XX. 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/pages.cfm/strategic-partnerships-coordination/pacific-environment-community-pec-fund](http://www.forumsec.org/pages.cfm/strategic-partnerships-coordination/pacific-environment-community-pec-fund)

## XXI. 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>

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