



国际航空二氧化碳减排长期理想目标可行性  
高级别会议 (HLM-LTAG)

2022年7月19至22日，蒙特利尔

议程项目 2：国际航空长期全球理想目标的实施手段

议程项目 4：会议的结论和建议

建立国际航空多边基金

(由巴西、印度、尼日利亚、俄罗斯联邦和苏丹提交  
并得到玻利维亚、古巴、萨尔瓦多和巴拉圭<sup>1</sup>的支持)

摘要

本文件提议建立一个可持续航空多边基金 (MFSA)，向发展中国家公共和私营利益攸关方实施国际民航部门内减排措施 (运行、技术和燃料) 提供充足的实施手段 (资金、能力建设和技术转让)，以便有助于实现长期理想目标，若国际民航组织通过一个长期理想目标的话。

建立该可持续航空多边基金的完整理由及建议的主要特点描述见附录 (仅有英文)，仅供参考。

会议的行动在第 9 段。

1. 引言

1.1 国际民航组织大会第 40 届会议要求理事会探讨国际航空长期全球理想目标 (LTAG) 的可行性，并将有关该事项的工作提交给第 41 届会议 (A40-18 号决议，第 9 段)。

1.2 经航空环境保护委员会核准的国际航空长期全球理想目标工作队报告巩固了这样一种认识，即直到 2050 年及之后，减排雄心的不同水平将涉及不同的成本和投资。它还显示，预计在实施运行措施方面也存在地区差异。

<sup>1</sup> 拉美民航委员会成员国

1.3 与可能通过的长期全球理想目标相关的成本和投资，将是在减缓和适应气候变化以及追求全经济范围内的可持续发展预期所需之外新的和额外的成本和投资。

1.4 因此，为了确保长期全球理想目标（若得到通过）的真正可行性，提供可预测和充足的气候资金以帮助发展中国家实施必要措施至关重要。这符合《京都议定书》第 2.2 段、《联合国气候变化框架公约》及其巴黎协定<sup>2</sup>，包括共同但有区别的责任和各自能力的原则以及大会 A38-18、A39-2 和 A40-18 号决议。还必须牢记《巴黎协定》第 9.1 条，该条明确规定了气候融资方面的角色分工：发达国家负责提供和发动资源，而发展中国家是资源接受者。

## 2. 目的和范围

2.1 该可持续航空多边基金的目的是为发展中国家的公共和私营利益攸关方实施国际民航部门内减排措施（运行、技术和燃料）提供充足的实施手段（资金、能力建设和技术转让<sup>3</sup>），以便有助于实现长期理想目标（若得到通过）。

2.2 信息交换所的职能也将归属于该可持续航空多边基金，以利于发展中国家缔约方。此类职能应与国际民航组织下属的技术合作局（TCB）密切合作。

## 3. 为什么需要该可持续航空多边基金

3.1 需要大量财政资源来创建和/或扩大生产可持续航空燃料和其他清洁能源的能力，并在较小程度上需建设/调整基础设施，特别是机场的机场设施。预计私有资金可以具有竞争力的条件和充足的金额为全球/国际公司的投资项目提供所需的资金。然而，同样的情况并不一定适用于发展中国家的国有投资者，他们往往竞争力不强和/或无法大量获得私有资金。

3.2 类似的推理适用于各国为了有助于实现潜在的长期全球理想目标，可能需要建造或调整基础设施，特别是与机场相关的基础设施。在不太成熟的市场中，此类基础设施往往仍在政府/国有企业手中，它们受到预算限制和/或在获得私人资金方面不占优势。

3.3 此外，实现可能的长期全球理想目标所需的行动不仅限于生产或基础设施投资。在能力建设、技术转让甚至运行改进这些领域，预计私有资金无法充分满足发展中国家利益攸关方的需求。

3.4 如果我们要以真正具有包容性并且不让任何国家掉队的方式实现可能的长期全球理想目标，并且所有方都为国际航空脱碳做出贡献并从中受益，那么所需的不仅仅是私有资金。需要以公共来源资金的形式提供额外支持，这是多边环境制度（包括与气候变化具体相关的制度）固有的一种实施方式，也是一种既定的做法。

3.5 在这种情况下，公共资源的一个可能来源是现有的多边和地区金融机构、环境基金和/或机制。它们肯定可以在满足发展中国家利益攸关方在民航脱碳努力的需求方面发挥作用。然而，若将这些资

<sup>2</sup> 参见第 2.1 条（c）款（需要“使资金流动符合温室气体低排放和气候适应型发展的路径”）和第 9 条（资金）。

<sup>3</sup> 政府间气候变化专门委员会关于技术转让方法学和技术问题的特别报告（SRRT）（IPCC，2000 年）将“技术转让”一词定义为涵盖不同利益攸关方之间关于缓解和适应气候变化的专长、经验和设备流动的一系列广泛的进程。

金来源用于航空部门，且其金额规模符合实现可能的长期全球理想目标的相关需求，在监管和财务方面都存在明确的限制。

3.6 初步分析表明，在任何主要机构或基金（例如，世界银行集团、绿色气候基金和全球环境基金）中，都不大可能修改现行的规定以提供针对特定部门的资金或基金用于满足航空脱碳需求。

3.7 在这种情况下，为有助于实现可能的长期全球理想目标的行动所需的适当资金，特别是对于发展中国家而言，将是高度不确定的（考虑到对有限资源的激烈竞争），且无疑是不够的，并且存在无法完全实施有待通过的任何目标的严重风险。因此，确实需要确保国际航空具体部门的脱碳承诺与针对具体部门的资金之间存在明确的关联。可持续航空多边基金将有助于做到这一点。

## 4. 治理和机构安排

4.1 可持续航空多边基金将向国际民航组织大会全面负责并向大会报告。

4.2 将成立一个执行委员会来管理可持续航空多边基金的运作。执行委员会将由 16 个国际民航组织成员国组成，由国际民航组织大会选举产生，发达国家和发展中国家的代表人数对等<sup>4</sup>。

4.3 鉴于其在国际气候融资方面的专业知识和经验，世界银行将担任可持续航空多边基金的受托人。根据类似机制的现行做法，它将从基金的资源中获得适当的报酬。

4.4 将建立一个小型且功能独立的秘书处来管理可持续航空多边基金。该秘书处的结构和运作方式将类似于目前适用于全球环境基金（GEF）秘书处的方式。

## 5. 可持续航空多边基金的运作方式

5.1 可持续航空多边基金将通过以下方式向发展中国家的公共和私营利益相关者拨发财政资源：赠款（仅限于国家）、优惠贷款和担保（包括作为混合融资的一部分），以资助可能有助于实施与潜在长期全球理想目标相关承诺的公共或私有政策、战略、方案、投资项目或其他行动。所有发展中国家的利益攸关方都可以获取这些资源。由可持续航空多边基金资助的行动将通过负责实施的联合国机构和方案以及其他获得适当认可的有信誉和资质的机构来执行。国际民航组织技术合作局（TCB）将有资格在涉及国际民航组织成员国的技术合作和援助项目中担任实施机构。

## 6. 可持续航空多边基金的初始筹集和增资

6.1 该多边基金将接收发达国家的强制性捐款。

6.2 大会关于建立可持续航空多边基金的决议将要求理事会确定为可持续航空多边基金筹集的初始金额，其基础是航空环保委的技术分析和与发展中国家的结构性磋商，以了解它们与长期全球理想

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<sup>4</sup> 就本文件而言，除了可能有待确定的国际民航组织成员国外，发达国家指的是《联合国气候变化框架公约》附件 I 中列出的那些国家。发展中国家是该附件中未提及的所有国家。使用发达国家和发展中国家的这一定义对于任何国家（缔约方或非缔约方）在任何国际法律文书或任何其他国际组织中的地位不发生任何影响。

目标（若得到通过）的雄心水平相关联的财务和技术需求。包含结构化对话的发现和建设的报告，连同航空环保委的分析，将构成理事会确定初始筹资数额的基础。

6.3 可持续航空多边基金将在每届国际民航组织大会上根据上述方法进行增资，直到任何长期全球理想目标（若得到通过）得以实现。

## 7. 透明度和问责制

7.1 在与受托人协商后，执行委员会将制定适当的流程和程序，以确保可持续航空多边基金的运营和财务透明度和问责制。受托人将编写有关投资和资源使用情况的财务报告，供执行委员会和国际民航组织大会审议。

## 8. 建立可持续航空多边基金

8.1 大会将指示国际民航组织秘书处在 12 个月内与世界银行作为基金受托人签订协议，并便利可持续航空多边基金秘书处的成立和初步运作。

## 9. 高级别会议的行动

9.1 请长期全球理想目标高级别会议建议在大会第 41 届会议上按照本工作文件中的提议建立可持续航空多边基金（MFSA）。

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## APPENDIX

### MULTILATERAL FUND FOR SUSTAINABLE AVIATION (MFSA)

#### INTRODUCTION

The 40th Session of the ICAO Assembly requested the Council to explore the feasibility of a long-term global aspirational goal (LTAG) for international aviation and for the work on the matter to be presented to the 41<sup>st</sup> Session (Resolution A40-18, paragraph 9). The CAEP LTAG Task Group (LTAG-TG) was established in March 2020 to provide technical support to the Council in undertaking such task.

The LTAG-TG report, as endorsed by CAEP, consolidated the understanding that different levels of ambition in emissions reductions would involve different costs and investments along a timeline through 2050 and beyond. It also showed that regional variances in the implementation of operational measures are also expected.

The costs and investments associated with the possible adoption of an LTAG, in particular in the two more ambitious Integrated Scenarios developed by the LTAG-TG (IS 2 and IS 3), would be new and additional to those already expected to be needed for mitigation and adaptation to climate change and the pursuit of sustainable development in other sectors/industries or economy-wide.

Therefore, in order to ensure the true feasibility of an LTAG, if any is adopted, it is paramount that predictable and adequate climate finance be provided to assist developing countries implement measures consistent with such goal, particularly in the context of recovery from the COVID-19 pandemic. This is consistent with paragraph 2.2 of the Kyoto Protocol, the UNFCCC and its Paris Agreement<sup>1</sup>, including the principle of CBDR-RC, and Assembly Resolutions A38-18, A39-2 and A40-18. One must also bear in mind Article 9.1 of the Paris Agreement, that establishes an unequivocal separation of roles when it comes to climate finance: developed countries are responsible for the provision and mobilization of resources while developing countries are their recipients.

In light of the above, ICAO Member States are invited to consider establishing, under a resolution to be adopted at the 41<sup>st</sup> Assembly, a Multilateral Fund for Sustainable Aviation (MFSA).

#### *Purpose and scope*

The purpose of the MFSA would be to provide to public and private stakeholders in developing countries adequate means of implementation (financing, capacity-building and technology transfer<sup>2</sup>) of in-sector measures for emissions reductions in civil aviation (operations, technology and fuels) that would contribute to achieving an LTAG, if adopted.

Such measures may include public or private policies, strategies, programs, investment projects or other actions that may contribute to the implementation of commitments related to a potential LTAG.

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<sup>1</sup> See Articles 2.1 (c) (the need of “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”) and Article 9 (financing).

<sup>2</sup> The IPCC Special Report on Methodological and Technological Issues on Technology Transfer (SRTT) (IPCC, 2000) defined the term 'technology transfer' as a broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change amongst different stakeholders

Clearing house functions would also be attributed to the MFSA, including assisting stakeholders in developing countries through, for instance, country-specific studies and other technical forms of cooperation aiming at identifying their needs for cooperation, facilitating technical co-operation to meet these identified needs, holding workshops, training sessions and other related activities, for the benefit of Parties that are developing countries. Such functions should be performed in close cooperation with the Technical Cooperation Bureau (TCB) under ICAO.

### *Why the MFSA is needed*

As previously mentioned, the purpose of the MFSA would be to provide public and private stakeholders with adequate means of implementation (financing, capacity-building and technology transfer) of a potential LTAG.

Regarding financing, very significant resources will be needed to create and/or expand capacity in the production of SAFs and other cleaner energy sources and, to a lesser extent, to build/adjust infrastructure, especially in airports. Private financing is expected to provide the funding needed for investment projects of global/international companies in competitive terms and adequate amounts. The same, however, does not necessarily apply to national investors, including large ones, in developing countries, as their access to private financing and the terms of access they have tend to be less competitive and/or abundant, if compared to those enjoyed by global investors.

A similar reasoning is valid for investment in infrastructure, particularly related to airports, that may need to be built or adjusted to implement actions/measures that may help achieve a potential LTAG. While it is true that, in many parts of the world, including in developing countries, parts of such infrastructure have been privatized or granted in concession, it is equally true that, in several others, often in less mature markets, they remain in the hands of governments/public companies. In these cases, budgetary resources (States) are typically insufficient and, as mentioned before, access by national investors (here, airport operators) to private funding or terms thereof are less advantageous than those available to global/international operators.

In addition, actions needed to achieve a possible LTAG are certainly not limited to production or infrastructure investment. Such other actions would not likely be funded by private financing.

One good example is capacity-building. It will be crucially important in developing countries in order to create or enhance governmental institutions and personnel needed to design and implement usually complex policies, regulatory frameworks (for SAFs, for instance) and programs (improvements in airspace control and in operations by airlines and airports, for example) conducive to contributing to the achievement of a possible LTAG. The implementation itself (beyond capacity-building) of such policies and programs (for instance, setting up/adjusting/supporting laboratories for certification or quality control of SAFs) would require additional financing that is not expected to be provided by private funding. Initiatives by the ICAO Secretariat such as ACT-SAF and future similar actions, although useful and important, are not expected to have the financial and human resources required.

Technology transfer also comes to mind. While, in several cases, investment projects financed by the private sector will include a technological component, there are likely to be situations in which this is not so or others in which technology proves to be too costly, in particular for national investors in developing countries, given the above-mentioned limitations and inequalities in access to and terms of private funding. Technology transfer to governments may also be an important part of public policies to support private investment in areas related to a potential LTAG.

Another area where private funding is not expected to play a significant role, if any, is R&D in developing countries. They may be crucial to the development or adaptation of technologies and processes to local conditions and needs (for example, identifying the most adequate technological pathways for SAF production, in light of locally available natural, technological and human resources).

In sum, it is clear that more than private funding will be required, if we are to achieve a potential LTAG in a truly inclusive manner and in such a way that no country is left behind and all contribute to and benefit from the decarbonization of international aviation. Additional support would be needed in the form of funding by public (national, regional and/or international) sources, which is a modality of means of implementation integral to and a well-established practice in the multilateral environmental regimes, including those specifically related to climate change.

In this context, one possible source of public resources in support of a possible LTAG would be the existing multilateral and regional financial institutions, environmental funds and/or mechanisms. They can certainly play a role in addressing the needs of stakeholders in developing countries in their efforts to decarbonize civil aviation. However, there are clear limitations, both regulatory and financial, for these funding sources to be used in the aviation sector in a magnitude commensurate with the needs associated with achieving a potential LTAG.

Some examples are useful here:

- a) In 2021, the World Bank Group established the Climate Change Action Plan 2021-2025. For the fiscal year 2022, the group has reserved USD 14.4 billion to finance projects with a climate change benefit on mitigation in all areas of activities, there being no specific facility for the aviation;
- b) Under the Green Climate Fund (GCF), USD 9.7 billions are currently available for projects in all sectors, with the expectation of a balance in the allocation of funds for mitigation (where the vast majority of possible LTAG-related needs would be felt) and adaptation. No specific facilities exist for aviation; and
- c) The Global Environment Facility (GEF), in its 8<sup>th</sup> replenishment period (2022-2026), is expected to have at its disposal USD 5.25 billion, out of which approximately USD 800 millions (app. 16% of the total) devoted to climate change, again in all sectors/industries.

A preliminary analysis indicates that in none of the institutions or funds mentioned above it is likely that current regulations would be easily amended to provide for sector-specific funding or funds would be augmented to cater for the needs of aviation decarbonization.

A similar situation is found in regional development banks or similar financial institutions, where, according to available information, no specific facilities exist for aviation and even lesser resources are available or are expected to be increased for stakeholders in developing countries.

In this context, the proper funding of actions required to help achieve a potential LTAG, especially by stakeholders in developing countries, would be highly uncertain (given the fierce competition for limited resources) and undoubtedly insufficient, with a serious risk of failure in fully implementing any goal to be adopted.

Therefore, there is a real and objective need to ensure a clear correlation between sector-specific decarbonization commitments in international aviation and sector-specific funding. The MFSA would help to do precisely that.

*Governance and institutional arrangements*

The MFSA would be fully accountable and report to the ICAO Assembly.

An Executive Committee would be established to manage the operations of the MFSA through, among other functions:

- a) establish and apply criteria for funding eligibility and priorities, according to any LTAG to be adopted and the needs of beneficiaries;
- b) determine criteria for eligibility of implementing agencies that would act as MFSA partners and accredit them according to such criteria;
- c) review and approve projects submitted for funding;
- d) oversee and assess the implementation of projects;
- e) oversee the disbursement of resources;
- f) ensure transparency and accountability in the use of resources;
- g) operationalize clearing house functions;
- h) assess the effectiveness of the MFSA on a regular basis; and
- i) report regularly to the ICAO Assembly.

The Executive Committee would be integrated by 16 ICAO Members States, to be elected by the ICAO Assembly. There would be equal representation of States of developed and developing<sup>3</sup> countries in the Executive Committee.

The Executive Committee may establish an advisory technical group to assist in the review, approval and oversight of projects.

In order to reduce costs associated with and expedite the establishment and functioning of the MFSA, it would partner with existing international organizations and financial institutions.

Given its expertise and experience in international climate finance, the World Bank would act as the Trustee of the MFSA. It would be appropriately remunerated with resources from the Fund, based on current practice in the similar mechanisms.

A small and functionally independent Secretariat would be established to manage the MFSA. Such Secretariat would be structured and function in a manner similar to what currently applies to the Secretariat of the Global Environment Facility (GEF).

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<sup>3</sup> For the purposes of this document, developed countries are those listed in Annex I to the UNFCCC, in addition to ICAO Member States to be possibly determined. Developing countries are all countries not mentioned in such Annex. Using this definition of developed and developing countries has no bearing either on the status of any State (party or not party) with regard to any international legal instrument or in any other international organization.

*Modalities of operation of the MFSA*

Through its Trustee, the MFSA would disburse financial resources to public and private stakeholders in developing countries in the following modalities: grants (exclusively to States), concessional loans and guarantees (including as part of blended financing) to fund public or private policies, strategies, programs, investment projects or other actions that may contribute to the implementation of commitments related to a potential LTAG.

The resources could be accessed by stakeholders in all developing countries.

This set of actions financed by the MFSA would be executed through implementing UN agencies and programs and other reputable and qualified institutions to be properly accredited.

The ICAO Technical Cooperation Bureau (TCB) would be eligible to act as an implementation agency in technical cooperation and assistance projects that involve ICAO Member States.

The Executive Committee would establish modalities of financing that are responsive to the needs and priorities of beneficiaries, while avoiding excessive rates of co-participation in policies, programs, strategies and projects that aim at developing enablers for technology, operations and fuels consistent with any LTAG to be adopted.

The disbursement of resources would be made with the concurrence of the beneficiaries.

*Initial mobilization and replenishment of the MFSA*

The multilateral fund would receive mandatory contributions from developed States.

The amount envisaged for the initial mobilization of resources is contingent upon the levels of ambition in any LTAG, if adopted. The multilateral fund shall cover the incremental costs entailed by any outcome from that process, which means that any financial goals must match the ambition levels derived from any LTAG to be adopted.

The Assembly resolution that would establish the MFSA would request the Council to determine the initial amount to be mobilized for the MFSA on the basis of technical analysis by CAEP and a structured consultation with developing States, regarding their financial and technological needs and priorities associated with the ambition levels of an LTAG, if adopted. A report containing the findings and recommendations of the structured dialogue would, together with the CAEP analysis, would serve as the basis for the Council to determine the initial amount to be mobilized.

The MFSA would be replenished at each ICAO Assembly until any LTAG, if adopted, is achieved, on the basis of the methodology described above.

*Transparency and accountability*

In consultation with the Trustee, the Executive Committee would establish appropriate processes and procedures to ensure the operational and financial transparency and accountability of the MFSA.

A common agreed definition of climate finance and methodology for accounting climate finance for sustainable aviation would also be established by the Executive Committee.

The Trustee would prepare financial reports on investments and the use of resources to the consideration of the Executive Committee and the ICAO Assembly.

*Setting up the MFSA*

The Assembly resolution that would establish the MFSA would direct the ICAO Secretariat to enter into an agreement with the World Bank as Trustee of the Fund in no later than 12 months and to facilitate the establishment and initial functioning of the MFSA Secretariat.

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