



WORKING PAPER

**HIGH-LEVEL MEETING
ON THE FEASIBILITY OF A LONG-TERM ASPIRATIONAL GOAL FOR
INTERNATIONAL AVIATION CO₂ EMISSIONS REDUCTIONS (HLM-LTAG)**

Montréal, 19 to 22 July 2022

Agenda Item 1: CO₂ emissions reduction scenarios and options for a long-term global aspirational goal for international aviation

**CONSIDERATIONS FOR THE FEASIBILITY OF A
LONG-TERM ASPIRATIONAL GOAL (LTAG)**

(Presented by the India, China, Russian Federation and Saudi Arabia)

SUMMARY

The paper presents the recommendations for consideration if LTAG is to be decided upon by ICAO. The paper recommends honouring the principles of CBDR and Equity and also a non-punitive non-discriminatory form of LTAG ensuring No Country Left Behind.

Action by the Meeting is in paragraph 2.

1. INTRODUCTION

1.1 Background

1.1.1 At the ICAO General Assembly held in September/October 2019 the resolution A-40/18 (9) was adopted, which reads: “Requests the Council to continue to explore the feasibility of a long-term global aspirational goal for international aviation, through conducting detailed studies assessing the attainability and impacts of any goals proposed, including the impact on growth as well as costs in all countries, especially developing countries, for the progress of the work to be presented to the 41st Session of the ICAO Assembly. Assessment of long-term goals should include information from the Member States on their experiences working towards the medium-term goal”.

1.1.2 ICAO’s CAEP LTAG-TG has carried out a study regarding Long-Term Aspirational Goal (LTAG) and submitted its report, which was released in the month of March 2022 to all the countries. It presents the background, methodologies, results and interpretations of the LTAG analysis. The CAEP report presents three aspirational scenarios low (IS1), mid (IS2) and high (IS3) generated for considering the LTAG. The three scenarios IS1, IS2, and IS3 generate Carbon Emissions savings of 39%, 68% and 87%

respectively. None of the three scenarios created to assess the LTAG, reach zero CO₂ emissions through the use of in-sector measures (i.e., technology, operations, and fuels). The costs and investments associated with the scenarios are largely driven by fuels (e.g., SAF) and will also require significant investments from governments and industry. The investments required from States would be USD 15 to 180 billion for low and USD 75 to 870 billion for mid and high scenarios. The incremental fuel related costs for airlines (minimum selling price of fuels minus conventional jet fuel price) will be USD 1100 billion for low, USD 2700 billion for Mid and USD 4000 billion for high scenarios.

1.2 UNFCCC and Paris Agreement

1.2.1 The mitigation goal of the Paris Agreement is to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels. To achieve this long-term temperature goal, countries aim to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, through nationally determined contributions.

1.2.2 In the recent past, the discourse on climate change has increasingly been referring to the phrase 'Net Zero'. In simple terms, net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere.

1.2.3 It is important to understand the implications of concept of Net-Zero. The commitments on Climate Change emanate from the UNFCCC and its Paris Agreement. The text of the Paris Agreement provides for 'global peaking' as opposed to 'individual peaking'. Article 4 of Paris Agreement reads: "In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties." This is a conscious and considered insertion in the text with full recognition of the fact that peaking will take longer for developing countries. Consequently, the word 'global peaking' has been used consciously keeping this in view.

1.2.4 Further it is also logical that if we truly believe in the principles of Common but Differentiated Responsibilities (CBDR) and of Equity, we can only have a Global goal which also takes in the contributions made by each State in form of its NDCs. This is because, taking into consideration Article 4 of Paris Agreement, it is evident that both developed and developing countries would not peak at the same time or attain Net-Zero at the same time. The developed countries, given their historical emissions, will have to peak first, and logically reach the goal of Net-Zero first. That is why the concept accepted in the Paris Agreement is a 'global peaking' and not 'individual peaking'.

1.2.5 It is equally evident that developing countries will take that much longer to reach 'Net Zero' given their overarching goals of poverty eradication and development. They will peak after the developed countries do. They will need to be given that additional time-frame to peak and go towards 'Net Zero'. Many countries have declared during COP26 targets to achieve Net Zero, which vary from 2040 to 2070.

1.2.6 The Kyoto Protocol to the United Nations Framework Convention on the Climate Change (UNFCCC) provides for pursuing limitation or reduction of emissions of greenhouse gases through ICAO. Extrapolating above discussion into ICAO's discussions on a LTAG in the Aviation sector, it consequently follows that this sector in developing countries is nowhere near peaking as compared to developed countries.

1.3 **Status of Developing Countries**

1.3.1 The aviation sector in developing countries will be seeing high growth whereas in the developed countries, it has already peaked or is very near to peak levels leading to very slow growth. The growth of aviation sector has a multiplier effect for increase in GDP and employment, the growth of aviation sector in developing countries has direct positive impact on other SDGs like poverty eradication and employment.

1.3.2 Further, the path being decided to achieve this goal is based on a complete revolution in technology, operations and fuels. There will be need for considerable costs for this transformation which will include: Capital expenditures, Infrastructure costs, Fuel technology transfer, capacity building, funding etc. This will have a very heavy cost implication on the aviation sector.

1.3.3 The technology and Sustainable Aviation Fuels (SAF) required for de-carbonisation of aviation are still in developing stage. There is no certainty about the time when the technology and SAF will become commercially viable and accessible to all the countries so that no country is left behind. It is obvious that technology and SAF will first become available in developed countries and then in developing countries. Similarly, the resources required for deployment of technology and SAF will be more accessible to aviation sector of developed States than in developing States.

1.3.4 Although countries are pursuing nationally appropriate sectoral efforts to reduce carbon emissions, it is important to appreciate that this is not addressed in sectoral terms in developing countries, keeping in mind national circumstances. A sectoral approach is not mandated for developing countries by the Paris Agreement. We need to preserve the integrity of what the Paris Agreement sets out while addressing international airspace which is under the mandate of ICAO. Therefore, it is important to pursue principles of CBDR and equity for ICAO's LTAG also.

1.4 **Recommendations for feasibility ICAO's LTAG**

1.4.1 It is evident from the above points that in the context of LTAG for International Aviation, it is feasible only if it is in line with the existing principles of Paris Agreement and there is no reason why it should not be the approach when it comes to international civil aviation as well, since Article 4 of the Paris Agreement and the principle of equity should be respected. It is equally evident that developed countries have to take the lead in reducing carbon emissions of aviation by the middle of the century to accommodate the developing countries to reduce carbon emissions at later stages according to their national circumstances.

1.4.2 It is important that ICAO's LTAG should not only be theoretically feasible but more importantly, equitable, practical, pragmatic, and realistic. Also, for LTAG to be feasible, the means of implementation and support to developing countries has to be commensurate with the level of ambition.

1.4.3 The CAEP report presents Carbon Emissions savings of 39%, 68% and 87% for low, mid and high aspirational scenarios respectively. The CAEP LTAG report acknowledged that countries will face differences in implementing measures to achieve any scenario.

1.4.4 ICAO must consider a mix of measures – taking into account the different contributions of technology, operations and fuels and the different availability of each of these elements for each region and State - according to different national circumstances and capacities, thus combining different levels of ambition for different actors, according to their historic responsibilities.

1.4.5 Moreover, the aviation ecosystem of any country consists of different segments like airlines, airports, ANSPs, etc. It may be relatively easier to reduce carbon emissions of some segments like Airports and ANSPs but considering the available technologies and even with deployment of Sustainable Aviation Fuels it is practically impossible to achieve zero emissions in aircraft operations. It is important to consider this while assessing the feasibility of LTAG.

1.4.6 If LTAG is adopted, it should not lead to non-tariff barriers on growth of international routes. It should not lead to a greater oligopoly market in airline industry on trans-continental routes. If ICAO adopts a LTAG, it should not create the basis for levying any kind of punitive action on airlines not adhering to it in future.

2. **ACTION BY THE HLM-LTAG**

2.1 The HLM-LTAG is invited to:

- a) strongly recommend that ICAO must consider principles of CBDR and Equity while deciding on LTAG. The developed nations must take immediate lead in reducing carbon emissions and provide adequate implementation assistance to others; and
- b) recommend that ICAO as part of LTAG should make building assistance mechanisms priority, and provide developing countries with adequate technical, funding and capacity-building, so as to strengthen the efforts of developing countries to address international aviation and climate change.

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