



**ASSEMBLY — 39TH SESSION**

**EXECUTIVE COMMITTEE**

**Agenda Item 22: Environmental Protection – International Aviation and Climate Change – Policy, Standardization and Implementation Support**

**ADDRESSING INTERNATIONAL AVIATION EMISSIONS IN THE CONTEXT OF THE PARIS AGREEMENT**

(Presented by the International Coalition for Sustainable Aviation (ICSA))

**EXECUTIVE SUMMARY**

Greenhouse gas (GHG) emissions from aviation, responsible for an estimated 4.9% of global warming, are growing at an alarming rate. Some estimates state that, with current growth rates, international aviation will, by 2050, consume 27% of the remaining carbon budget under a 1.5°C scenario. To date, measures adopted have proven ineffective in limiting aviation’s climate impact.

To provide a roadmap for action, and certainty, ICAO should take the lead in developing a credible long-term emissions goal for the sector which is consistent with the objectives of the Paris Agreement.

To have credibility, such a goal must be followed by a review of the overall contribution represented by the ‘basket of measures’ currently pursued by ICAO. The outcome of this process should be presented to the UNFCCC in the form of an ICAO Determined Contribution (DC), in time for the 2018 Facilitative Dialogue and subsequent stocktakes.

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

- a) request Council to reconsider the figure of 200Gt in CAEP’s forthcoming analysis of international aviation emissions in the context of a “1,000 Gt budget 1.5/2°C” scenario, to conclude with firm proposals for a long term emissions goal;
- b) request Council to communicate an ICAO determined contribution to the 2018 UNFCCC facilitative dialogue;
- c) request Council to examine the scope of measures contained in the ‘basket of measures’;
- d) request Council to identify means to address non-CO<sub>2</sub> effects in measures already adopted or under consideration.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objective E – <i>Environmental Protection</i>
<i>Financial implications:</i>	

## 1. INTRODUCTION

1.1 International aviation emissions remain a large and growing driver of climate change. Not only have international aviation emissions grown 75% between 1990 and 2012, they are now equal to the 129 lowest emitting countries combined. Further, they are projected to grow 300% by 2050 unless action is taken. Such growth is partly due to the growth of the aviation sector in emerging economies. However, international aviation emissions have also grown due to regulatory inaction, and the many missed opportunities to implement policies which could already be limiting and reducing the growth in aviation emissions. Such inaction includes the ongoing exemption from international fuel taxation, a failure to act on the Kyoto Protocol's call to implement effective measures and the refusal to adopt effective efficiency standards for aircraft.

1.2 As the effects of climate change become more evident, and as the Paris Agreement set the necessary level of ambition to which all parties must contribute, now is the time for the aviation sector to outline its ambition and pursue measures to rapidly reduce its climate impact.

## 2. ALIGNING INTERNATIONAL AVIATION AMBITION WITH THE PARIS AGREEMENT

2.1 195 countries adopted the historic Paris Agreement last December, which established the target of limiting a temperature increase to well below 2°C above pre-industrial levels and to pursue a limit of 1.5°C above pre-industrial levels. The 'well below 2°C' recognises the severe threat that a 2°C increase poses to the entire planet - not just the existential threat to a number of states, but to the security and prosperity of countries across the planet. The call for efforts to limit warming to 1.5°C recognizes the severe and irreversible impacts of warming above this level on vulnerable countries, ecosystems, and communities.

2.2 Achieving these objectives requires not just ambitious action from all parties and sectors, but also the timely implementation of that ambitious action. Due to the rapidly diminishing global carbon budget, which is the amount of carbon which can be emitted before the 1.5°C or 2°C degree targets are exceeded, action delayed will result in the need for drastically steeper cuts in the future. Some estimates for the budget compatible with avoiding a temperature increase above 1.5°C put the remaining global carbon budget at 200GT. This therefore requires global emissions to peak urgently and then decline rapidly.

2.3 As the Paris Agreement contains a strict temperature limit, and covers all anthropogenic emissions, emissions from international aviation are covered by the Agreement per se. However, the Agreement remains unclear on how these emissions are to be addressed. ICAO therefore has the opportunity to demonstrate that it is a capable and effective forum to adopt the measures necessary to reduce aviation's impact in line with the action required by the Agreement.

## 3. ESTABLISHING AN EFFECTIVE LONG-TERM TARGET

3.1 ICSA welcomes the task assigned by ICAO's Committee for Aviation Environmental Protection (CAEP) to its Impacts and Science Group (ISG), Alternative Fuels Task Force (AFTF) and Modelling and Database Group (MDG) earlier this year to put international aviation emissions into the context of a "1,000 Gt budget 1.5/2°C" scenario. However recent estimates put the remaining carbon budget to avoid an increase above 1.5°C at 200Gt. One estimate states that international aviation, on

current growth rates, will consume 27% of the global carbon budget to remain under 1.5/2°C. ICSA therefore supports this work, but calls on Council to consider a 200Gt scenario as well as the 1,000Gt scenario. This work should enable ICAO to fulfil the request of the 38th Assembly to “*continue to explore the feasibility of a long term global aspirational goal for international aviation*” and conclude with a firm proposal for a long term emissions goal.

#### **4. ESTABLISHING AN ICAO DETERMINED CONTRIBUTION TO THE PARIS AGREEMENT**

4.1 To achieve the objectives of the Paris Agreement, Parties to the Agreement communicate nationally determined contributions (NDCs). The first round of NDCs typically cover the period up to 2030. The Agreement set out a framework to regularly review the NDCs and enable Parties to scale up their ambition over time to reflect the highest possible ambition. Current NDCs cover domestic emissions, while the Agreement commits to reducing all anthropogenic emissions and therefore covers emissions from international aviation (and shipping).

4.2 Parties to the Agreement shall also take stock of progress at regular intervals, starting in 2018, to assess the collective progress towards achieving the long term goals of the Agreement. These reviews shall reflect the best available science, including the report currently being prepared by the Intergovernmental Panel on Climate Change on the implications of 1.5°C and related global GHG emissions pathways. While emissions from international aviation are covered by the Agreement, it remains unclear how this stocktaking process will address these emissions.

4.3 At present, reports prepared by the UNFCCC Secretariat analysing the impact of NDCs communicated to date assume international aviation will achieve carbon neutral growth from 2020. As carbon neutral growth from 2020, like the majority of NDCs submitted to date, is insufficient to achieve the objectives of the Agreement, its ambition will have to increase over time.

4.4 An interim report, prepared by CAEP and adopted by the Council, should be submitted to the 2018 Facilitative Dialogue organised in accordance with COP Decision1/CP.21. This interim report should place ICAO’s global aspirational goal of carbon neutral growth from 2020 in the context of an “ICAO Determined Contribution” towards the long term goals of the Paris Agreement for the period 2020-2035. It should assess progress towards the goal and prospects for increased ambition from the sector. The interim report should demonstrate a commitment to increase the sector’s ambition in a manner consistent with the Agreement.

#### **5. REVIEW OF THE BASKET OF MEASURES**

5.1 To ensure any emissions trajectory developed by ICAO has credibility, it must also be accompanied by a regular and robust review of policies adopted to achieve it. The starting point for such a review is the ‘basket of measures’ adopted by ICAO (A38-18). The ‘basket’ includes advancement in aircraft technology, operational improvements, sustainable alternative fuels, and market-based measures.

5.2 The ‘basket’ is an important tool, but measures adopted to date are insufficient to halt, let alone reduce, aviation’s climate impact. It is important therefore that any review conducted during the 2016-2019 cycle identifies how each of these measures can be improved or gain additional environmental integrity. It is also important for measures adopted by ICAO to prioritise ‘in sector’ emission reductions to limit international aviation’s consumption of the rapidly diminishing global carbon budget. In this respect, Council should ensure the stringency of the CO<sub>2</sub> Standard is reviewed as soon as possible - but no later than by CAEP/12.

5.3 To ensure the success in reducing aviation's climate impact in line with the objectives of the Paris Agreement, it is important that the scope of the policies pursued by the 'basket' be considered. One particular concern is a potential over-reliance on alternative fuels, given the increasing competing demands for land and water from, amongst other things, the need to feed a growing global population and the land requirements of other climate change mitigation activities such as reduced deforestation. A review of the 'basket' should therefore include other measures relating to taxation, and should examine whether policies in place artificially inflate demand or provides a disincentive for greater efficiency. This would also be an opportunity to reconsider ICAO's stated opposition to revenue raising for climate finance. Given the considerable climate impact of international aviation, and the need to raise climate finance, it has always been a regressive step to rule out a contribution from the sector.

## 6. **NON-CO<sub>2</sub> EFFECTS**

6.1 Recent years have seen a greater level of understanding of the non-CO<sub>2</sub> climate impacts from aviation. While such research acknowledges that there remains a degree of uncertainty, neglecting the non-CO<sub>2</sub> climate impact from aviation will send inadequate incentives to the actors and undermine the cost-efficiency of all mitigation actions. Thus, it is necessary that all agreements to limit the climate impact from aviation also - as far as existing knowledge allows and based on the precautionary principle - integrate actions to neutralise the non-CO<sub>2</sub> impact. It is appropriate for Council to therefore examine whether measures adopted by ICAO can be amended to reflect a conservative non-CO<sub>2</sub> effect factor.

6.2 One way to account for such non-CO<sub>2</sub> effects is to introduce discounting to the GMBM, whereby operators surrender additional allowances to account for the adopted factor. This would be an efficient and cost-effective way to address non-CO<sub>2</sub> effects, which would not require additional measures, and can be adjusted over time as science develops.

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