



**Fourth GREPECAS–RASG-PA Joint Meeting and
 Twenty-second Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/22)**

Virtual Phase (Asynchronous, 16 September to 11 October 2024)
 In-Person Phase (Lima, Peru, 20 to 22 November 2024)

**Agenda Item 5: CAR/SAM Air Navigation Services (ANS) Implementation
 5.3 Aeronautical Meteorology (MET) and Environmental Protection
 (ENV)**

Environmental Strategy in the NAM/CAR/SAM Regions

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This Working paper presents the strategy for the implementation of ICAO environmental protection initiatives, emphasizing the implementation of State Action Plans (SAP).	
Action:	Suggested actions are presented in Section 4.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Safety • Air Navigation Capacity and Efficiency • Environmental Protection
<i>References:</i>	<ul style="list-style-type: none"> • Reports of the 37th, 38th, 39th and 40th sessions of the ICAO Assembly • ICAO Assembly Resolution A41 – 21 • ICAO Assembly Resolution A41- 22 • Report of the Third Conference on Aviation and Alternative Fuels (CAAF/3).

1. Introduction

1.1 ICAO has established a set of measures to limit or reduce emissions from international civil aviation and promote a green transition of the Sector. The measures include: 1) Technology and standards; 2) Sustainable aviation fuels (SAF); 3) Operational improvements; 4) Market-based measures (Carbon Offsetting and Reduction Scheme for International Aviation – CORSIA).

1.2 In 2010, Resolution A37-19 established very important objectives for the protection of the Environment of international civil aviation

1.3 At the 38th Assembly, the Secretariat was requested to explore market-based measures to support the achievement of ICAO objectives related to environmental protection.

1.4 The 39th ICAO Assembly approved a market-based offset scheme – the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

1.5 The 40th Assembly called for exploring long-term measures to support the decarbonisation of aviation by 2050.

1.6 The 41st Assembly approved the implementation of the Long-Term Global Aspirational Goal (LTAG) with the aim of decarbonising international civil aviation by 2050.

1.7 The Third Conference on Aviation and Alternative Fuels (CAAF/3) approved the ICAO Global Framework for Sustainable Aviation Fuels (SAF), Lower Carbon Aviation Fuels (LCAF) and other Aviation Cleaner Energies, and in June 2024 the ICAO Council approved a roadmap for the implementation of the outcomes of CAAF/3.

1.8 Additional background information is available in the **Appendix** to this note.

2. Discussion - States' Action Plans on CO₂ Emissions Reduction Activities

2.1 State action plans for reducing CO₂ emissions are a planning and reporting tool on activities to address CO₂ emissions from international civil aviation. Quantifying the information contained in an action plan allows ICAO to compile global progress towards meeting global aspirational goals and for States to demonstrate their contribution.

2.2 A key aspect of successfully developing and implementing an action plan is the degree and nature of collaboration between the different stakeholders within a State. These include, but are not limited to, aviation and environmental authorities, airlines and airports, air navigation service providers, statistical departments and fuel suppliers. Gathering information from these stakeholders and consolidating this input into an action plan ensures that the development of the plan is based on a cooperative process and that the measures contained therein are accurate, comprehensive and feasible to implement.

2.3 While State Action Plans remain an important tool for communicating national climate action initiatives for international aviation, they also serve as a key tool for ICAO to assess Member States' progress towards achieving their collective global aspirational goals.

2.4 ICAO Doc 9988 – “Guidance on the development of State action plans for CO₂ emission reduction activities” – Third Edition, 2019, in Chapter Four, contains guidance on examples of measures to be selected to limit or reduce CO₂ emissions from international aviation and on how to quantify the effects that such measures will have when implemented.

2.5 In accordance with Assembly Resolution A41-21, States are invited to develop, update and submit their voluntary SAPs as soon as possible, preferably before the end of June 2024. States are encouraged to provide information related to relevant innovations in aircraft technologies, operational improvements and cleaner energies, and to describe respective policies, actions and roadmaps, including long-term projections with the provision of quantified data, all supported by ICAO guidance and tools. All the latest information related to State Action Plans and ICAO capacity building activities is updated on the website.

2.6 As of May 2024, 147 States representing more than 98% of global international air traffic [in Revenue Tonne Kilometre (RTK)] have voluntarily submitted their SAPs to ICAO. The previous triennium 2020/2022 saw the highest number of updated SAPs from 56 States, indicating that States are actively updating their plans and sharing information on their planned actions to reduce aviation CO₂ emissions.

2.7 The first step in developing an action plan is to secure the commitment of all stakeholders involved in civil aviation matters in the State. States, for example: air operators, airport authorities and air navigation service providers (ANSPs), among others, are key actors in the adoption of mitigation measures included in the action plans. These activities require high collaboration and cooperation to ensure data reliability.

2.8 In the case of ANSPs, it is necessary to consider the adoption of the Aviation System Block Upgrades (ASBU) Methodology that facilitates the implementation of air traffic management improvements. This methodology enables States to advance their air navigation capabilities in accordance with their specific operational requirements, and enables aviation to achieve global harmonization, increased capacity and improved environmental efficiency.

3. Conclusion

3.1 ICAO works for the sustainability of aviation, from an environmental perspective, and to make aviation an environmentally friendly activity.

3.2 The States' action plans on CO₂ emissions reduction activities are a planning and reporting tool on activities to address CO₂ emissions from international civil aviation.

3.3 Operational improvements, one of the measures in the basket of measures, contribute to States and interested parties achieving sustained growth, greater efficiency and responsible environmental management, while reinforcing operational safety.

3.4 It is necessary for GREPECAS to establish a link between capacity and efficiency objectives and environmental protection, through data on CO₂ emission savings derived from the operational improvements implemented.

3.5 The Meeting, after evaluating the information included in this note, could consider approving the following conclusion:

DRAFT CONCLUSION	
GREPECAS/22/XX	Environmental Strategy in the NAM/CAR/SAM Regions
<p>What:</p> <p>That,</p> <p>a) ANSPs support their counterparts in charge of the States' Action Plans on CO₂ emissions reduction in their corresponding States, to complete the development or update of this plan to emphasize the benefits derived from the operational improvements implemented by integrating quantified data,</p> <p>b) GREPECAS establishes a link between the capacity and efficiency objectives and environmental protection objectives, through data on CO₂ emission savings derived from operational improvements implemented through the Aviation System Block Upgrade (ASBUs).</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input checked="" type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Operational/Technical</p>
<p>Why:</p> <p>Following ICAO Assembly resolutions, States agreed to support the aviation industry's transition to cleaner energy sources and achieve the net-zero 2050 global aspirational goal.</p>	
<p>When: GREPECAS 23</p>	<p>Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed</p>
<p>Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:</p>	<p>Secretariat, States</p>

4. Suggested actions

4.1 The Meeting is invited to

- a) note the information provided in this working paper;
- b) support the dissemination of ICAO environmental protection initiatives;
- c) consider approving the conclusion presented in section 3.5; and
- d) take other actions that are considered appropriate.

APPENDIX

1. In 2010, the 37th Assembly, through Resolution A37-19, paragraph 4, approved that States and relevant organizations shall work through ICAO to achieve a global average annual improvement in fuel efficiency of 2% in the medium term to 2020 and an annual rate of improvement in fuel efficiency of 2% in the long term from 2021 to 2050, as a global aspirational goal, calculated on the basis of the volume of fuel consumed per tonne-kilometre of payment incurred.
2. By the same resolution, paragraph 10, States that choose to prepare their State Action Plans (SAPs) were invited to submit them to ICAO as soon as possible, and if possible, by the end of June 2012, to enable ICAO to compile information on the achievement of the global aspirational goals. This request has been reiterated to Member States through Resolutions A38-18, A39-2, A40-18 and A41-21.
3. In the same resolution A37-19, paragraph 13, the Council was requested, with the support of Member States, to undertake the work of determining a framework for market-based measures (MBM) for international aviation.
4. The Secretariat undertook studies on the possible implementation of a single system of market-based measures, which was presented at the 38th Assembly as a preliminary report. For the 39th Assembly, the Secretariat presented a compensation scheme for international civil aviation using market-based measures, which Resolution A39-2 approved under “Carbon Emissions Reduction and Offsetting Scheme for International Aviation – CORSIA”.
5. Resolution A40-18, Consolidated Statement of Continuing ICAO Policies and Practices Related to Environmental Protection — Climate Change, requested the Council to study the feasibility of a Long-Term Aspirational Goal (LTAG) for international aviation and to present progress to the 41st Session of the ICAO Assembly (see 40-18, paragraph 9). The ICAO Committee on Environmental Protection conducted the feasibility study which was presented to the High-Level Meeting on the Feasibility of a Long-Term Ambitious Goal for the Reduction of CO₂ Emissions from International Aviation (HLM-LTAG) in July 2015. 2022, and was presented to the 41st Assembly.
6. The 41st ICAO Assembly, through Resolution A41-21, approved the Long-Term Ambitious Goal (LTAG) without attributing specific obligations or commitments in the form of emissions reduction targets to each State; instead, it recognizes the special circumstances of each State and its respective capabilities (for example, the level of development, the maturity of aviation markets, the sustainable growth of its international aviation, the just transition and national air transport development priorities).
7. The Third Conference on Aviation and Alternative Fuels approved the ICAO Global Framework for SAF, LCAF and other cleaner energies for aviation and established as a main objective that ICAO and its Member States work towards to achieve their shared global vision and ambition of reducing CO₂ emissions from international aviation through the use of SAF, LCAF and other cleaner aviation energies (as opposed to not using any cleaner energies) in the range of 5% to 8% by 2030.

8. ICAO has established technical assistance and capacity-building programmes for the implementation of environmental protection initiatives and to support States in their preparation for them. These programmes are called:
 - a) ACT-CORSIA;
 - b) ACT-SAF
9. The Meeting should note that the measures included in the ICAO set of measures to limit or reduce emissions from international civil aviation include operational improvements. This category reflects changes in Air Traffic Management (ATM) procedures and improvements in infrastructure and operations that reduce flight times and optimise the use of airspace, with the aim of reducing fuel consumption and therefore reducing CO₂ emissions.
10. At the regional level, the Secretariat supports States in the preparation of their State Action Plans (SAP) as well as their triennial update, and the consideration of all possible mitigation measures to be implemented, including operational improvements.
11. Regarding the LTAG and the ICAO Global Framework for SAF, LCAF and other cleaner energies for aviation, the Secretariat is working with States to set up Technical Roundtables for discussion on SAF, to find points of convergence between all parties involved, which will allow for the breaking down of barriers that impede the development of the SAF, LCAF and other cleaner energies for aviation industry.
12. The Secretariat is also promoting a strategic agreement with the industry and States to promote feasibility studies of SAF in the States of the NAM/CAR/SAM Regions.