



WORKING PAPER

ASSEMBLY — 40TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 16: Environmental Protection – International Aviation and Climate Change — Policy and Standardization

Agenda Item 17: Environmental Protection – Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

RECENT DEVELOPMENTS IN THE COLLECTION, MONITORING AND REPORTING OF CO₂ EMISSIONS FROM INTERNATIONAL AVIATION

(Presented by Kenya)

EXECUTIVE SUMMARY

This paper is intended to share Kenya’s experience and progress in the collection, monitoring and reporting of data related to CO₂ emissions from international aviation. These developments were part of a set of initiatives undertaken by Kenya to update and strengthen its voluntary action plan for CO₂ mitigation from the aviation sector, submitted to ICAO in December 2015 and participation in CORSIA. This paper highlights Kenya’s achievements to date, and the key role played by ICAO’s capacity building programme. This paper also describes remaining challenges, and the proposed next steps.

Action: The Assembly is invited to:

- a) note the information provided;
- b) support States in implementing an efficient and sustainable data Monitoring, Reporting and Verification (MRV) strategy;
- c) support and strengthen capacity building on CO₂ emissions reduction, building upon the successful experience of the ongoing assistance project, and further facilitate States’ access to financial resources, technical support and technology transfer;
- d) Support and encourage member States to participate in CORSIA; and
- e) Encourage Member States to build partnerships on climate change related matters and foster cooperation and knowledge exchange at the regional and global levels.

<i>Strategic Objectives:</i>	This working paper relates to Strategic Objectives. E – Environmental Protection.
<i>Financial implications:</i>	Additional financial resources are required.
<i>References:</i>	<ul style="list-style-type: none"> • Resolution A38-18 of the ICAO Assembly • Resolution A39-3 of the ICAO Assembly • ICAO-European Union Capacity Building for CO₂ Mitigation from International Aviation • Kenya Action Plan for the Reduction of CO₂ Gas Emissions in Aviation Sector

1. INTRODUCTION

1.1 In its Resolution A38-18, *Consolidated statement of continuing ICAO policies and practices related to environmental protection –Climate change*, the International Civil Aviation Organization (ICAO) encouraged its Member States to submit voluntary action plans outlining their respective policies and actions, and annual reporting on international aviation CO₂ emissions to ICAO, preferably by the end of June 2015 and once every three years thereafter. These action plans shall contain relevant baseline data and expected results on CO₂ emissions from international aviation at the State level, allowing ICAO to compile the information globally and monitor the progress towards the achievements of the global aspirational goals of a global annual average fuel efficiency improvement of 2 per cent until 2020 and a global fuel efficiency improvement rate of 2 per cent per annum from 2021 to 2050.

1.2 Since the Resolution A38-18 was approved in 2013, the ICAO Secretariat has undertaken significant actions to assist Member States in their effort to reduce CO₂ emission from international aviation. In the Eastern and Southern African (ESAF) Region, one workshop on action plans was organized in 2014 and 15 experts trained from 8 Member States. In addition, two joint assistance projects with the European Union and UNDP-GEF respectively were started to further increase support and build capacity on the elaboration and implementation of action plans in developing States. Other initiatives such as ICAO's Performance Based Navigation (PBN) Programme further contributed to the mitigation of CO₂ from international aviation. Assisting States in collecting and reporting more robust CO₂ emissions data has been included as a critical component in these capacity building activities.

1.3 In its Resolution A39-3 Assembly acknowledged the progress achieved on all elements of the basket of measures available to address CO₂ emissions from international aviation, including aircraft technologies, operational improvements, sustainable alternative fuels and a GMBM scheme and any other measures, and affirms the preference for the use of aircraft technologies, operational improvements and sustainable alternative fuels that provide the environmental benefits within the aviation sector.

1.4 In its Resolution A39-3 Assembly also decided to implement a GMBM scheme in the form of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) to address any annual increase in total CO₂ emissions from international civil aviation (i.e. civil aviation flights that depart in one country and arrive in a different country) above the 2020 levels, taking into account special circumstances and respective capabilities.

1.5 In its Resolution A39-3 Assembly also decided that ICAO and Member States take all necessary actions in providing the capacity building and assistance and building partnerships for implementation of the CORSIA from 2020, including the implementation of the MRV system and the establishment of Registries.

2. DEVELOPMENTS

2.1 Following the 37th Session of ICAO Assembly and the participation in several capacity building workshops organized by ICAO on action plan development, Kenya created an Aviation Environmental Working Group (AEWG) comprising of the main relevant stakeholders of the aviation sector and submitted a first draft action plan to ICAO in 2013. This document, which was one of the first action plan in the African region, described the main initiatives for CO₂ emissions mitigation in the aviation sector in Kenya. However, collecting relevant data from the national stakeholders was still a challenge at that time and the action plan therefore only included limited quantitative data on CO₂ emissions.

2.2 Prior to the 38th Session of ICAO Assembly, Kenya formulated a request for assistance to ICAO and was subsequently selected and became one of the fourteen beneficiary States of the three-year ICAO-European Union Project on Capacity building for CO₂ Mitigation from International Aviation. With the project support, Kenya enhanced the AEWG and submitted a consolidated action plan to ICAO in December 2015.

2.3 The development of the updated action plan went hand in hand with a significant improvement of Kenya Civil Aviation Authority (KCAA)'s data collection, monitoring and reporting system, which led to the inclusion of robust trends for baseline and expected CO₂ emissions in the action plan.

2.4 A dedicated software, the Aviation Environmental System (AES), developed by ICAO, was implemented at KCAA to facilitate the collection and processing of CO₂ emissions data by the State. The AES is a monitoring, reporting and verification (MRV) tool developed in the scope of the ICAO-European Union project that has been installed in all the selected States of the project including Kenya. This tool has enabled KCAA to collect data related to traffic and fuel consumption from national air carriers through a standardized format, to analyse the submitted information and to easily report aggregated data on fuel consumption and CO₂ emissions from international aviation to ICAO.

2.5 As part of ICAO-European Union project on Capacity building for CO₂ Mitigation from International Aviation two mitigation measures were implemented. That included:

2.5.1 Ground-mounted 507kW solar photovoltaic (PV) system and electric ground power unit and preconditioned air unit at Moi International Airport, Mombasa that was completed in June 2019 and is expected to generate 820,000 kWh per year and offset 1,300 tonnes of CO₂ annually.

2.5.2 Conducted a feasibility study on sustainable aviation fuels (SAF), aiming at assessing the potential of the country to develop a sustainable production of sustainable fuels for aircraft and ground support equipment in the coming years.

2.6 In parallel, an awareness raising campaign was launched to sensitize all national carriers to the climate change issue and the need to monitor and report their CO₂ emissions to the State. Technical support was provided on demand to facilitate the adoption of the new data submission format and therefore ensure that "No stakeholder is left behind".

2.7 Kenya was a member of high level group on GMBM, actively participating and chairing one of the sub-group meeting. Kenya was also elected as vice chair of the ICAO High-level Meeting on a global Market-Based Measure (MBM) Scheme held on 11th to 13th May 2016.

2.8 Kenya participated in CORSIA Small Scale Implementation Project spearheaded by the German government and ICAO to test the MRV provisions of the CORSIA SARPS.

2.9 Kenya decided to voluntarily participate in the CORSIA scheme with effect from 2021 to 2023 and at the moment an Aeronautical Information Circular was issued to all national airlines requesting them to implement CORSIA from 1st January 2019 which prepared and submitted their Emission Monitoring Plans.

2.10 Following Resolution A39-3 Assembly and since the adoption of Annex 16, Vol IV, ICAO regional Office in Kenya has supported ACT-CORSIA initiative for capacity building and assistance for States in the implementation of the global scheme and volunteered to support Uganda, Rwanda, South Sudan and Seychelles to assist them to prepare for CORSIA implementation. Under the

partnerships, technical experts from Kenya worked together with the CORSIA focal points of recipient States to provide on-site training, and to closely follow-up on the preparation and implementation of the recipient States' CORSIA MRV system (in particular on the development and approval of Emissions Monitoring Plans, as well as on the establishment of national and/or regional regulatory frameworks).

3. CONCLUSION

3.1 Data collection, monitoring, reporting and verifications (MRV) remains a key challenge in most States, in particular developing countries and States having particular needs. In order to promote the development of robust action plans and increase States' readiness to address incoming MRV requirements, Kenya urges ICAO to increase its capacity building programme on CO₂ emissions reduction, building upon the successful experience of the ICAO-European Union assistance project, and further facilitate States' access to financial resources, technical expertise and technology transfer.

3.2 Kenya encourages Member States, in particular from the Africa-Indian Ocean (AFI) region, to formulate assistance requests to ICAO for the development and implementation of their voluntary action plans for CO₂ emissions reduction from international aviation, and for the improvement of their environmental data collection, monitoring and reporting capacity.

3.3 In order to further develop regionalized assistance to States and continue to foster regional cooperation and knowledge exchange, Kenya encourages Member States to build partnerships on climate change related matters, for instance through the "Buddy Programme" or additional dedicated regional capacity building projects.

3.4 Kenya urges ICAO to take necessary action to expand the provision of capacity building and assistance for the preparation and implementation on Member States' action plans, in order to accommodate capacity building and assistance for establishment of registries by States, including organization of seminars and training in all regions from 2020, and facilitation of financial support where needed, in particular for those States that volunteer to participate in the CORSIA pilot phase and require support to do so.

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