



Republic of Zimbabwe

State Action Plan For Reduction of CO₂ Emissions from International Aviation



Second Phase of the ICAO Assistance Project with the EU Funding : *“Capacity Building for CO₂ Mitigation from International Aviation*

Third Meeting - Virtual
25 to 27 July 2023



Haanyadzisi Batisai
Alt. State Focal Point



Agenda

Progress of the mitigation measures

- Measures already in place
- Measures that as a result of the project
- Measure that are scheduled to be implemented in the short term

SAF Feasibility Study

Way Forward

- SAF Strategy
- Aviation Environmental System (AES)

Challenges related to the implementation of mitigation measures

- Major challenges related to the implementation of mitigation measures



Mitigation Measures – Implementation Progress

The State Action Plan identifies six key measures that are expected to have the greatest environmental impact. Implementation of some the selected measures has commenced while other measures are yet to be implemented.



AIRCRAFT RELATED TECHNOLOGY

- The state encourages aircraft operators to replace their fleet with newer and more modern aircraft with technologies which are fuel efficient.
- The State will look into financing assistance to enable the upcoming airlines in Zimbabwe to acquire a more modern fleet.

ATM IMPROVEMENTS

- Implementation of PBN routing in the whole airspace will permit flexible routes and increased fuel savings by the operators.
- The Victoria Falls Airport has procedures for both SID and STAR and is awaiting training of controllers and full implementation of the system.
- It is envisaged that implementation of these will reduce the en-route fuel burn.



MEASURES ALREADY IN PLACE

Selecting the aircraft suited to the mission



Embraer 145



Embraer 120



Participation in Environmental Programs

- State volunteered to participate in Pilot phase of CORSIA on 14 February 2022.
- The State is also participating in Act-SAF and has six (06) organizations from Zimbabwe who have joined ACT- SAF and have signed the Terms and Conditions.

Airfield improvements

- The traditional halogen runway and taxiway lights have been replaced by energy saving LEDs at the RG Mugabe and JM Nkomo Intl Airports.

Reduction in Energy Demands

- Traditional incandescent lights have been replaced by LED lights with motion sensor in parts of the Terminal buildings where it is practical.



Infrastructure design



The New RGMI Airport Terminal



Victoria Falls



Clean Sources of Energy



- The State has been encouraging the use of cleaner energy sources at the airports.
- A significant number of shuttles are 100% Electric with the remainder being either hybrid vehicles or small engine capacity vehicles.



Clean Sources of Energy Cont'd

Closing on: Friday, February 17, 2023

Invitation for Expression of Interest for Development and Operation of Solar Farms at Robert Gabriel Mugabe, Victoria Falls and Joshua Mqabuko Nkomo International Airports

PROCUREMENT REFERENCE NUMBER: ACZ/INTERNATIONAL/EOI/O101/2023

COMPULSORY SITE VISIT: N/A

Your submission should reach the Airports Company of Zimbabwe (Private) Limited not later than the Closing Date at 10:00 hours, clearly marked and deposited in the Tender Box at the PMU Reception, 2nd Floor

- Implementation of Solar Farms around Airports with a view of eventually having Solar at Gate facilities.



MEASURES THAT STARTED AS A RESULT OF THE PROJECT

Minimising Thrust Reverser Use

- Operators have started implementing this mainly at RG Mugabe and Victoria Fall Intl Airports where runways are relatively long.

Engine Wash

- Even though the operating environment does not dictate frequent engine washes, operators have started implementing this measure as a result of the project.

Air Traffic Management

- Even though there was a PBN implementation project with Airspace design having been done at in Vic Falls, the State Action Plan has brought a renewed push for PBN implementation to be completed.



MEASURES TO BE IMPLEMENTED IN THE SHORT TERM

Single Engine Taxi

- Consultations are under way for the implementation of this measure on applicable aircraft types.

Sustainable Aviation Fuels

- Under the project, the State was selected for a feasibility study on Sustainable Aviation Fuels. It was highlighted that a Consultant was recruited and will be introduced to the State in the near future.



SAF FEASIBILITY STUDY

- A need for the feasibility study of Zimbabwe's capacity to have SAFs as a mitigatory measure was identified
- To help in executing the study, an ICAO consultant was recruited
- The feasibility study has a life span of six (6) months, and it started in May 2023
- The feasibility study has a number of stages it follows:
 - a. Consultation meeting with the stakeholders
 - b. On-site data collection
 - c. Off-site data collection
 - d. Preparation of the report on the gathered information
 - e. Publication of the report
 - f. Implementation of the feasibility study results

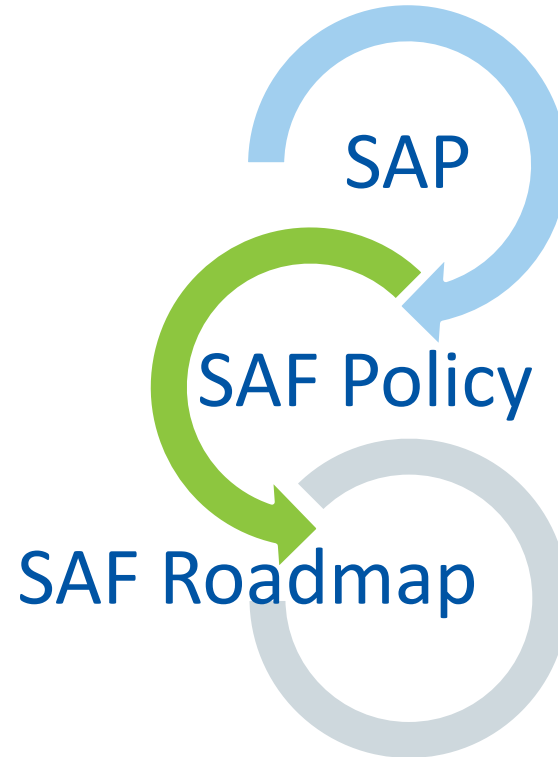


SAF FEASIBILITY STUDY

- The feasibility study suffered the following challenges:
 - a. The ICAO consultant was recruited when Zimbabwe was preparing for the ICAO Coordinated Validation Mission (ICVM) audit
 - b. The on-site data collection coincided with the ICVM audit, and as such the State had no enough time to give the consultant full support
 - c. Some stakeholders were not readily available, which resulted in data collection being rushed
 - d. The State is getting into an election season (August 2023) which might disturb information gathering for the off-site data collection



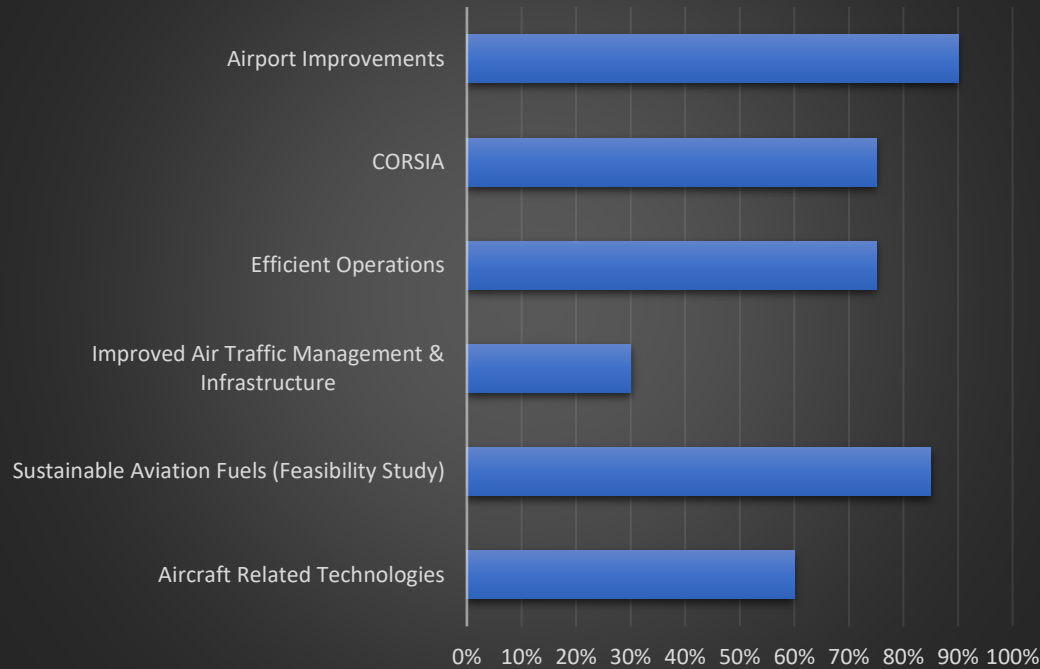
Way Forward: SAF Strategy



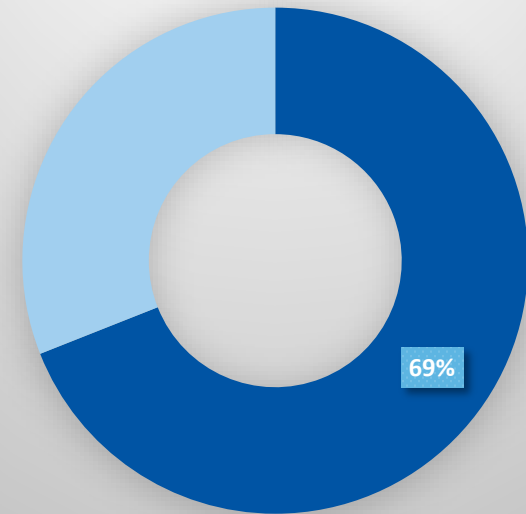


SAP Implementation Progress

Zimbabwe SAP Implementation Progress



Overall Implementation Progress





Implementation Challenges

Funding

Capacity

Lack of Understanding



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU