



Republic of Seychelles



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

3 to 5 April 2023
Harare, Zimbabwe



Name: Kurtis Lespoir & Ariana Desnousse
National Focal Points



Content

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Aviation Environmental System

- Data collection
- Submissions of monthly CO₂ reports to ICAO

2

Progress of the mitigation measures

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

3

Challenges related to the implementation of mitigation measures

- Major challenges related to the implementation of mitigation measures



Aviation Environmental System (AES)

October 2022

Installation of AES

14- 18 November 2022

Training on the use of AES

January 2023

Air Seychelles provided remaining data for year 2022

March 2023

Air Seychelles submitted data for January 2023 and February 2023

Seychelles Civil Aviation Authority (SCAA) submitted **3** reports to; ICAO, CEO of SCAA and Air Seychelles

- 2022 Annual CO₂ monitoring report
- Monthly CO₂ monitoring report for **January 2023** and **February 2023**





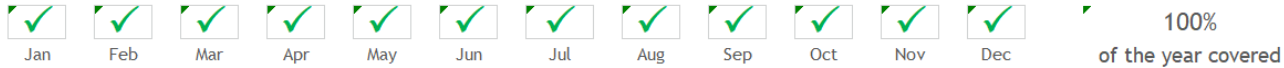
AES Reports - 2022 Annual Report

ANNUAL AVIATION CO₂ REPORT
2022

Seychelles

State-level report - 1 reporting airline(s)
ICAO definition for international flights

MONTHLY REPORTS SUBMITTED

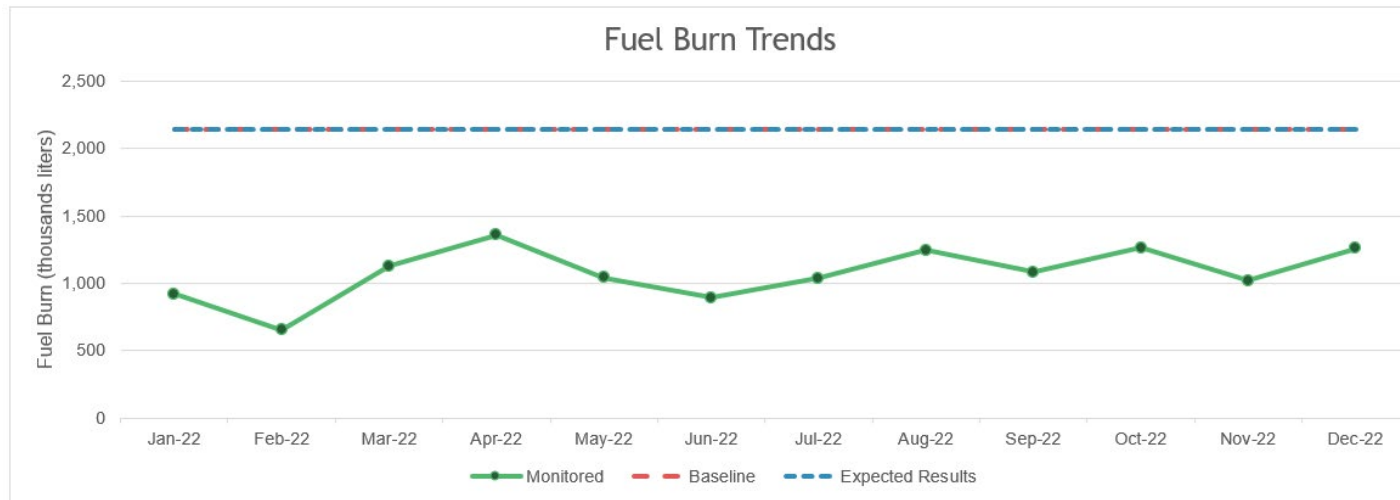


KEY METRICS FOR INTERNATIONAL AVIATION

FLIGHTS	RTK (tkm)	FUEL BURN (L)	CO ₂ EMISSIONS (t)	FUEL EFFICIENCY (L/tkm)
1,031	50,072,413	12,916,421	32,653	0.258



AES Reports - 2022 Annual Report





Monthly reports (Jan & Feb 2023)

MONTHLY AVIATION CO ₂ REPORT					Seychelles	
Jan-23		State-level report			1 reporting airline(s)	
ICAO definition for international flights						
KEY METRICS FOR INTERNATIONAL AVIATION						
FLIGHTS	RTK (tkm)	FUEL BURN (L)	CO ₂ EMISSIONS (t)	FUEL EFFICIENCY (L/tkm)		
101	4,715,282	1,252,600	3,166	0.266		
TRENDS						
MONTH-TO-MONTH	Jan-23	Dec-22	% CHANGE	6 MONTHS TREND		
RTK (tkm)	4,715,282	5,751,345	↓ -18%			
FUEL BURN (L)	1,252,600	1,260,914	↓ -1%			
CO ₂ EMISSIONS (t)	3,166	3,187	↓ -1%			
FUEL EFFICIENCY (L/tkm)	0.266	0.219	↑ 21%			
YEAR-TO-YEAR	Jan-23	Jan-22	% CHANGE	1 YEAR TREND		
RTK (tkm)	4,715,282	2,482,823	↑ 90%			
FUEL BURN (L)	1,252,600	920,774	↑ 36%			
CO ₂ EMISSIONS (t)	3,166	2,328	↑ 36%			

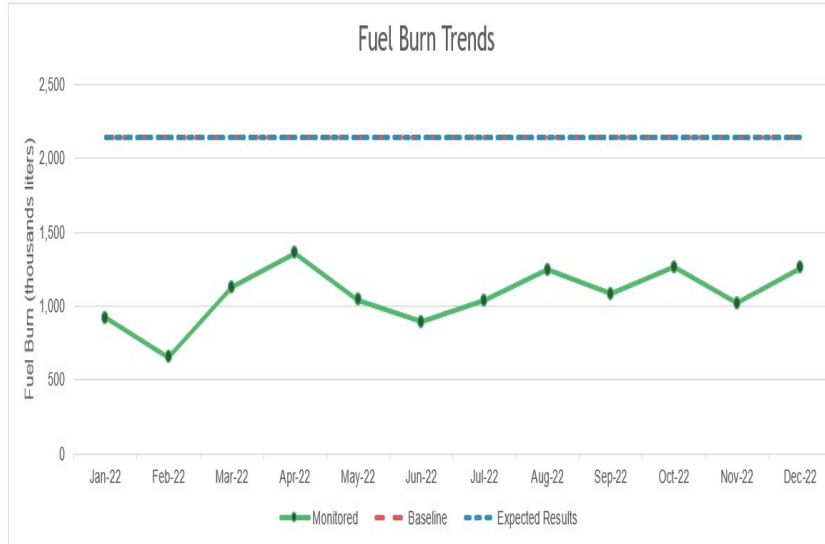
January 2023

MONTHLY AVIATION CO ₂ REPORT					Seychelles	
Feb-23		State-level report			1 reporting airline(s)	
ICAO definition for international flights						
KEY METRICS FOR INTERNATIONAL AVIATION						
FLIGHTS	RTK (tkm)	FUEL BURN (L)	CO ₂ EMISSIONS (t)	FUEL EFFICIENCY (L/tkm)		
81	4,365,347	940,299	2,377	0.215		
TRENDS						
MONTH-TO-MONTH	Feb-23	Jan-23	% CHANGE	6 MONTHS TREND		
RTK (tkm)	4,365,347	4,715,282	↓ -7%			
FUEL BURN (L)	940,299	1,252,600	↓ -25%			
CO ₂ EMISSIONS (t)	2,377	3,166	↓ -25%			
FUEL EFFICIENCY (L/tkm)	0.215	0.266	↓ -19%			
YEAR-TO-YEAR	Feb-23	Feb-22	% CHANGE	1 YEAR TREND		
RTK (tkm)	4,365,347	2,121,968	↑ 106%			
FUEL BURN (L)	940,299	656,258	↑ 43%			
CO ₂ EMISSIONS (t)	2,377	1,659	↑ 43%			

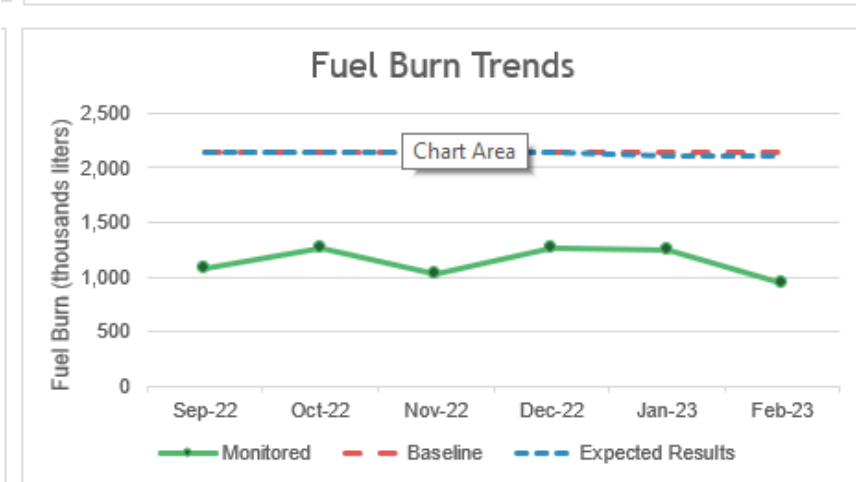
February 2023



Expected Results



Expected Result for 2022



Expected Result for February 2022



Challenges of AES

- Late submissions of data by air operators
- Incomplete data
- Time consuming (change IATA code to ICAO code)
- IT encountering difficulties to store data on server





Progress of mitigation measures

15 measures were identified in the Seychelles Action Plan

1. Voluntary inclusion in CORSIA



In October 2022, Seychelles confirmed its Voluntary participation for **2021 -2023** and **2024-2026**

CORSIA training held in February 2023 with UKCAA and KCAA.



Project ongoing with the implementation of the ATM modernization;

2. Improve the use of optimum flight levels
3. Improve the use of optimum flight levels
4. Efficient departure and approach procedures CDO
5. Efficient departure and approach procedures CCO
6. Utilize RNAV/RNP capabilities



Revamped and modernized tower



Mitigation Measures – Implementation Progress

Measures	Completed	Ongoing	Comments
Sustainable Feasibility Study for Sustainable Aviation Fuel (SAF)		✘	<p>Measures started as a result of the project</p> <ul style="list-style-type: none"> SCAA intends to join ACT SAF. Awaiting response from ICAO
<p>Minimizing Weight</p> <p>Plastic free</p> <p>Biodegradable Product</p>	✘		<p>Measure already in place</p>
<p>Installation of LED</p> <ul style="list-style-type: none"> SCAA conducted a pilot study in 2019. Result showed that LED would reduce the overall operational cost of the airport. SCAA to change all lights at the airport 		✘	<p>Measures already in place</p> <p>ETS has changed the approach and threshold light. Changing of lights around the terminal is also on the way.</p>
Conversion of GSC to cleaner fuels		✘	<p>Not started. This will involve other stakeholders.</p>



Challenges related to the implementation of mitigation measures

- Difficulties to get all members to participate in meetings
- Government is still familiarizing with the environmental agenda for aviation. However, has shown great support.
- Domesticating international requirements
- Budget



2022 Environmental Achievements



Partnered with TRASS
Relaunched the Virtual Environment Pledge
Wall



SCAA and TRASS planted over 100 trees to honor pledgers



National competition for secondary and post secondary
level



Winning team



Prize Giving Ceremony for the Young Innovators
Challenge



Prize Giving Ceremony for Interdepartmental recycling competition



CORSIA presentation with representative from government





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