



## Republic of Botswana Progress Update

Second Phase of the ICAO Assistance Project with the EU Funding: "Capacity Building for CO<sub>2</sub> Mitigation from International Aviation

3 to 5 April 2023 Harare, Zimbabwe



Name Oarabile Tiny Podisa & Malebogo Mdojwa

ICAO Assistance Project with EU funding Phase II Capacity Building for CO<sub>2</sub> Mitigation from International Aviation

© ICAO 2023





## Agenda

- ✓ Aviation Environmental System (AES)
- Mitigation Measures Implementation
   Progress
- ✓ Major challenges related to the implementation of mitigation measures





#### AVIATION ENVIRONMENTAL SYSTEM (AES)



AES installation was done on the 1st of April 2022

ICAO project consultant met and briefed the CAAB executive management (19 September 2022)





Training on AES to Focal points was conducted from the 19<sup>th</sup> to the 23<sup>rd</sup> of September 2022

ICAO Assistance Project with EU funding Phase II | Capacity Building for CO<sub>2</sub> Mitigation from International Aviation



# MONTHLY AVIATION CO2 REPORT Botswana 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)	CO2 EMISSIONS (t)	FUEL EFFICIENCY (L/tkm)
155	301 286	222 320	562	0,738

MONTHLY AVIATION CO <sub>2</sub> REPORT	Botswana	
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)	CO2 EMISSIONS (t)	FUEL EFFICIENCY (L/tkm)
164	307 603	270 468	684	0,879



#### MITIGATION MEASURES IMPLEMENTATION PROGRESS

#### Air Traffic Management

- $\checkmark$  en-route PBN using flexible tracks has been implemented
- ✓ CAAB to commence coordination of flexible use of civil-military airspace (April 2023)
- Improve Runway traffic flow through sequencing (AMAN/DMAN) especially in Maun airport
- ✓ Implement CCO and CDO in all Botswana international airports



ICAO Assistance Project with EU funding Phase II Capacity Building for CO<sub>2</sub> Mitigation from International Aviation





#### MITIGATION MEASURES IMPLEMENTATION PROGRESS

### CORSIA

- ➢ Botswana volunteered to participate in CORSIA
- The 6th of June 2022 civil aviation CORSIA regulations were published
- Identified 2 scheduled operators (Air Botswana & Mack Air)

ICAO Assistance Project with EU funding Phase II Capacity Building for CO<sub>2</sub> Mitigation from International Aviation



Botswana has joined ACT-SAF and continues to benefit from the initative

Following successful completion of SAP Botswana hopeful to be one of beneficiaries of ICAO-EU Project to

- Conduct feasibility studies for SAF and solar panel farm
- Installation of floor tiles that convert kinetic energy from footsteps into electricity

#### Botswana University of Agriculture and Natural Resources

Agri-voltaic is a concept that combines food production, both crops and livestock under the shade of solar panels and production of photovoltaic electricity.



ICAO Assistance Project with EU funding Phase II Capacity Building for CO<sub>2</sub> Mitigation from International Aviation





## CHALLENGES FACED

- Lack of funds to train relevant personnel and stakeholders
- Need to establish office of environment
- o Lack of data and late submission from operator









ICAO Assistance Project with EU funding Phase II Capacity Building for CO<sub>2</sub> Mitigation from International Aviation

© ICAO 2023