



ICAO-European Union Joint Assistance Project Summary of Project Results in Africa

Mombasa, Kenya

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OBJETIVE 1

Key Results on Capacity Building

ENVIRONMENT



44 On-site support missions



STATES' ACTION PLANS

CO₂ MONITORING (AES)

ATFM | PBN

SUSTAINABLE AVIATION FUELS

ROM Review

REGIONAL ACTION PLAN

Twenty five Missions

Twenty five Mission

Twelve Missions

Two Missions

Three Missions

Two Missions



4+ ICAO EU Regional Seminars





National Action Plan Teams





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Capacity Building



ICAO



+200

Stakeholders Involved



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CAPACITY BUILDING FOR CO₂ MITIGATION FROM INTERNATIONAL AVIATION

PROJECT FUNDED BY



Submission of States Action Plans

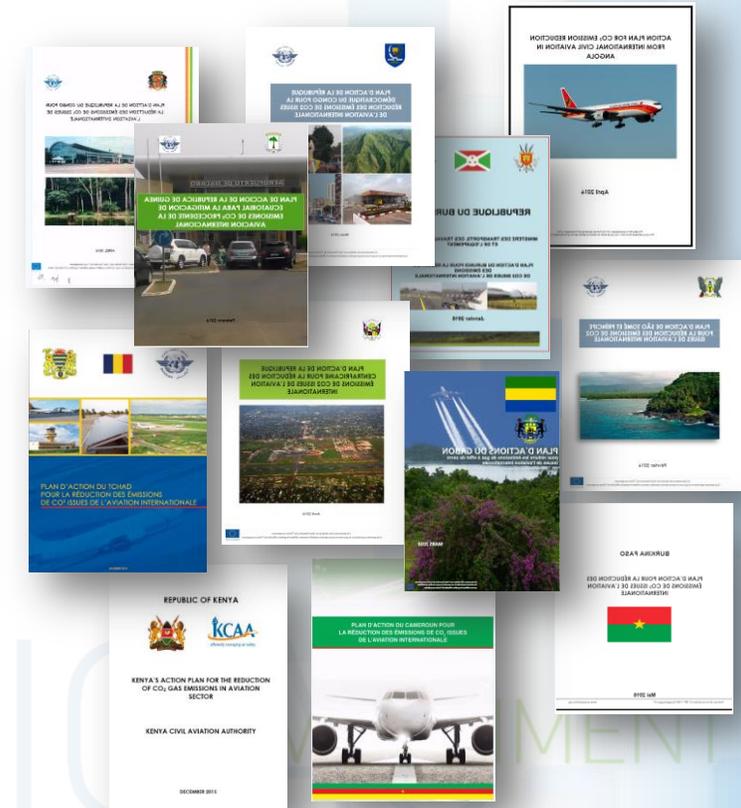
All 12 States submitted a new Action Plan to ICAO
APs fully comply with ICAO Doc9988 requirements

Robust and reliable data

Balanced selection of measures from several
categories within the basket of measures

Clear quantification of the expected results

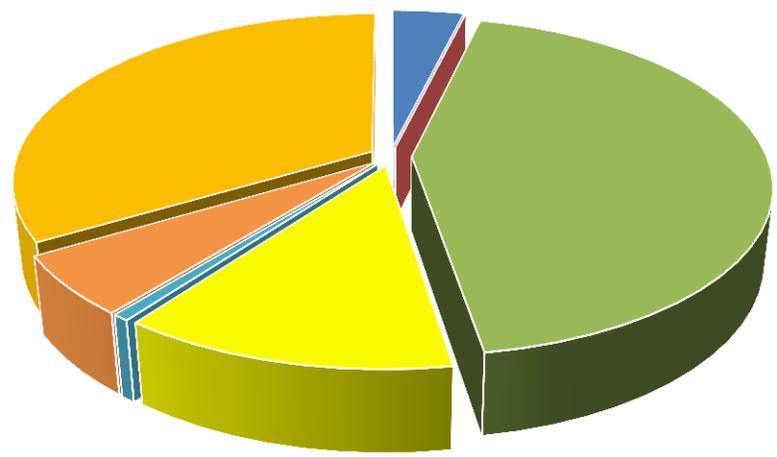
176 mitigation measures selected to reduce close to **390,000 tCO₂**
emissions from international aviation annually and about **40,000**
tCO₂ domestic emissions (co-benefits)



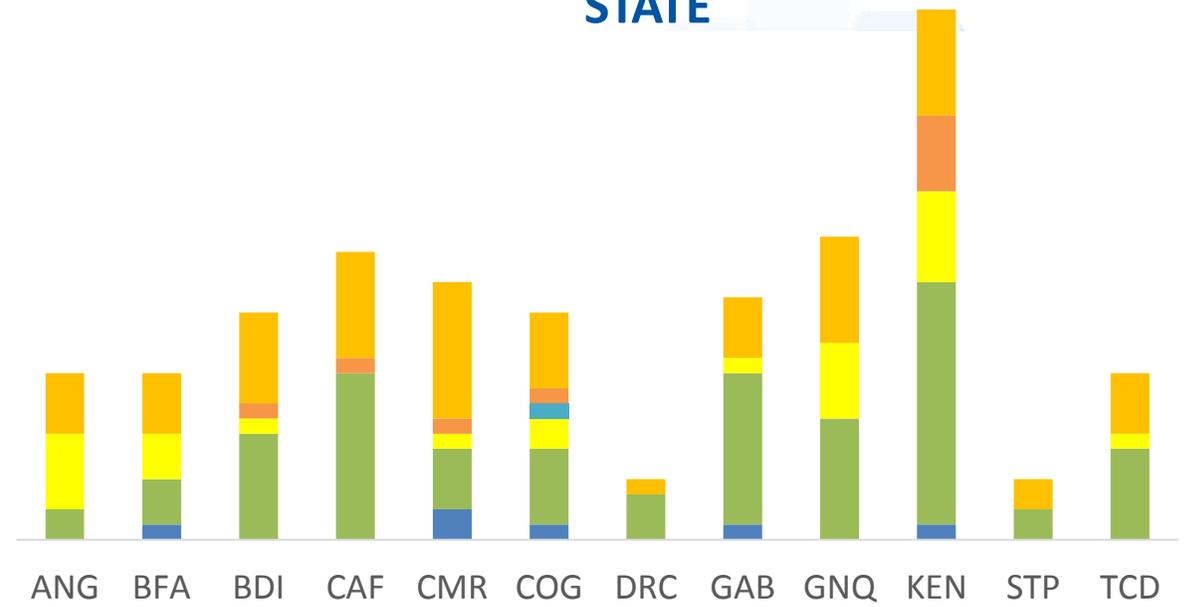
Number of measures

- Aircraft Technology
- Alternative Fuels
- ATM and Infrastructure Use
- More Efficient Operations
- Economic Measures
- Regulatory Measures

CATEGORY



STATE





OBJETIVE 2

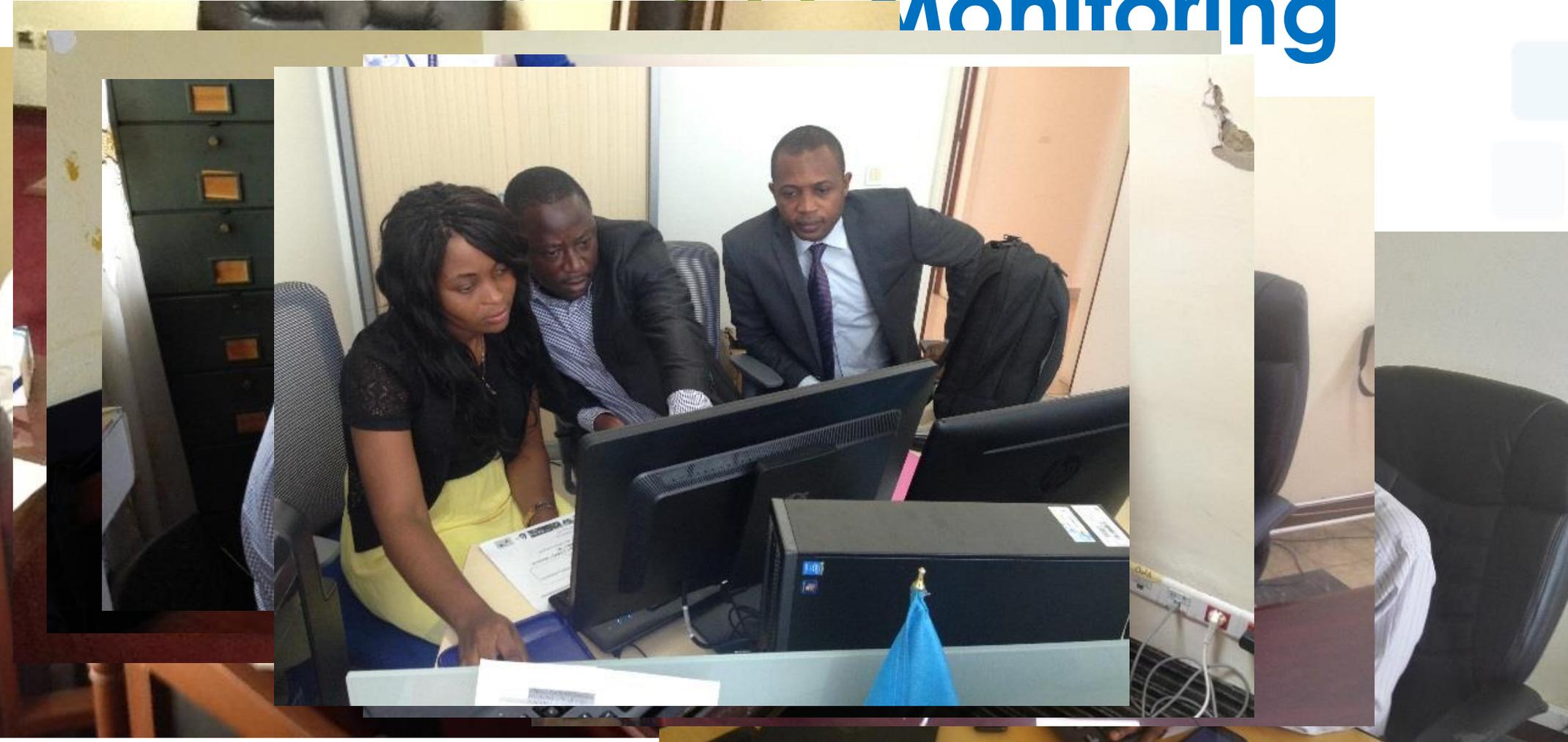
Aviation Environmental System (AES)

CO₂ Monitoring





CO₂ Monitoring



Aviation Environmental Systems | **AES**



- Enhancement of the AES software (functionalities and integration) in each State **towards a solid MRV system**
- Continuing support on the use of the AES **On-site support missions**
- Emissions monitoring and reporting using the AES | **Monthly and Annual Reports**

Regulation for CO₂ emissions reporting

- ➔ **National Regulation** to require national airlines to **submit relevant flight data periodically** in the format compliant with the Aviation Environmental System (Form ENV1).
- ➔ Form ENV1 includes all relevant data on traffic and fuel consumption necessary for the CAA to use the AES for **CO₂ emissions monitoring** from international aviation at the national level.





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OBJETIVE 3

Mitigation Measures Implementation

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Pilot mitigation measures funded by the project



Farmer reception at Bantogdo



1. Feasibility studies on SUSTAINABLE AVIATION FUELS ✓✓



2. CCO-CDO Pilot Projects LIBREVILLE & OUAGADOUGOU

- Partnership with ASECNA related to the improvement of ATM
- Design CCO-CDO procedures based on validated Conceptual design
- Validate the procedures (Ground and Flight validation)
- Conduct experimentation of the procedures during 3 to 6 months

Solar Pilot Projects Mombasa & Douala



Solar Pilot Projects



Progress on the States' Action Plans

CO₂ Mitigation



52%

Mitigation Measures implemented
in African States

Successful actions taken on **CO₂ Mitigation**

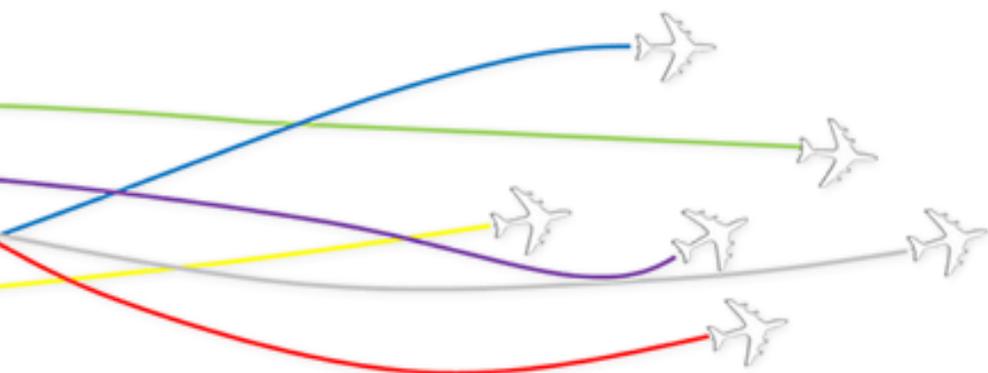


- **Minimising weight** | TAAG Angola reduced the use of dispatch and pilots extra fuel, also reduced the contingency fuel to 3% (ERA) in some flights where possible
- International Airport of Libreville obtained the **ACI Carbon Accreditation on Mapping**
- **PBN procedures** and **ATFM Units** are being established in most African States
- **Best Suited Aircraft** | Air Burkina Faso removed from traffic of aircraft types MD87 and CRJ200 and commissioned new generation aircraft type EMBRAER 170

Successful actions taken on **CO₂ Mitigation**



- Camair-Co established procedures for **Optimized Flaps use**
- There are **electrical GSE and GPU** at Brazzaville International Airport to use the Aircraft APUs switch.
- The aviation authorities of Gabon are facilitating the coordination to improve flexible use of civil-military airspace in Libreville.
- All the flights with the AFRIJET Gabon fleet are using **Single Engine Taxi**



Highlights & Actions connected to the Project

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Coordination with ECCAS Secretariat for the development of a Joint Action Plan for 10 ECCAS States



Supports the establishment of regional approach to address CO₂ emissions from international aviation



Facilitates the follow-up and sustainability of the project results at long term





Consideration of the project framework as part of a National Program



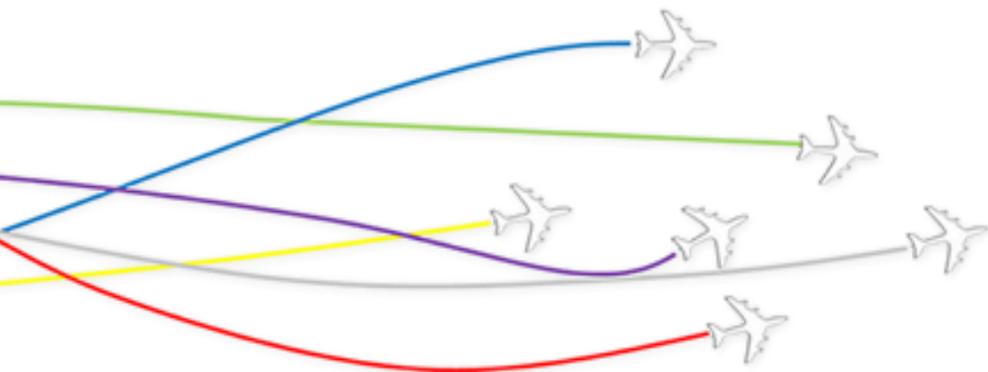
Creation of a common forum for discussions and joint actions amongst stakeholders

Contribution
to the dialogue
of stakeholders

- ✱ Definition of a country strategy and detailed action log
- ✱ Coordination of various initiatives into a common strategy
- ✱ Common understanding of key aspects and concepts related to the reduction of CO₂ emissions in civil aviation
- ✱ Structured methodology for information sharing



Creation of Environmental Units at CAA



Challenges & Lessons learned

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Challenges

- ✿ Bad weather period during mission travel
- ✿ On-site missions in States under challenging political stability
- ✿ Poor communication with Project Focal Points
- ✿ Coordination of 11 States and perform different responsibilities
- ✿ States involvement and Focal Points nomination
- ✿ Division of authority in some countries for constitution of NAPT
- ✿ Maintain national interest and motivation of the Focal Points
- ✿ Data collection and baseline calculation (Focal Points)
- ✿ Lack of robust monitoring systems in the selected states
- ✿ Customs clearance of AES equipment in some States
- ✿ Project computer stolen in CAR
- ✿ Delays in the implementation of pilot projects

Lessons Learned



Technical Assistance as a catalyst to trigger initiatives at the State level



Strengthen collaboration with Focal Points allows a significant improvement on the communication, participation and involvement in the roll-out of the project activities



On-site support missions help the focal points to showcase much more knowledge and awareness on the environmental issues



On-site support missions facilitate a direct engagement in the implementation of the project at the national level



A growing pool of regional and local experts would enable future innovation and sustainability in African States



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A WINDOW FOR A **GREENER FUTURE**



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European Union