



Despite aviation only accounts for about 2% of global man-made CO2 emissions, these emissions are projected to grow in the foreseeable future. As a response, under the auspices of ICAO. governments agreed on the aspirational goals of 2% annual fuel efficiency and carbon neutral growth from 2020 onwards.



In order to achieve these aspirational goals, ICAO has developed a basket of mitigation measures that includes concrete actions that States can undertake to reduce CO₂ emissions from international aviation.





The Action Plans reflect States' strategies to effectively implement actions from the basket of measures to address the CO₂ emissions according to their national context and aviation activity. By October 2016, 102 ICAO Member States, representing more than 90% of global traffic have Action Plans to ICAO.



ICAO Member States had the willingness to take action but without the organization's assistance, initiatives dedicated to CO₂ mitigation measures would be hard or impossible to achieve in the expected timeframe. With the provision of dedicated support, this project facilitates the achievement voluntarily submitted their of global aspirational goals.

THE SELECTED STATES IDENTIFIED **218 POTENTIAL MITIGATION MEASURES**

CAT 1 Aircraft related technology

CAT 2 Alternative fuels

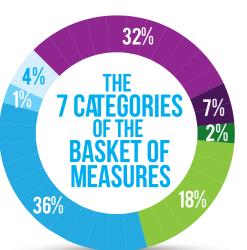
CAT 3 Improved Air Traffic Management

CAT 4 More efficient operations

CAT 5 Economic/market based measures

CAT 6 Regulatory measures

CAT 7 Airports improvements



ADDITIONAL BENEFITS AND SYNERGIES

The robust data collection processes that are implemented i the context of the States' Action Plans also enable the States to obtain data related to domestic aviation and thus to enhance their capabilities to submit inventories and plans to mitigate CO₂ emissions to both ICAO and the United Nations Framework Convention on Climate Change (UNFCCC) on international and

Similarly, initiatives aimed at reducing international aviation emissions may contribute as co-benefit to also reduce CO_2 emissions from domestic aviation falling under the scope of the UNFCCC. These initiatives create synergies are fully aligned with the national efforts promoted by the UNFCCO to reduce domestic CO₂ emissions through their Intended Nationally Determined Contributions (INDCs).

ICAO States' Action Plans also provide an important vehicle to identify assistance needs. The UNFCCC's Nationally Appropriate Mitigation Actions (NAMAs) also facilitate assistance for capacity building, technology transfer and

Through parallel and complementary approaches, ICAO and the UNFCCC address emissions from international aviation and States' domestic emissions, respectively. By enhancing the synergies in the collection of aviation data and identification of nitigation measures for international and domestic aviation through the ICAO Action Plans, a robust set of information will be available to different UN bodies, while respecting both organizations' mandates and regulatory frameworks.











PROJECT HIGHLIGHTS

THE ICAO-EUROPEAN UNION PROJECT: AN INTEGRAL PART OF ICAO'S ENVIRONMENTAL PROGRAMME

has been working on a comprehensive strategy to strengthen on the environment became a reality and today, the States' Action Plans on CO₂ emissions reduction from international aviation have become one of the key elements of ICAO's environmental strategy. They are used as a tool to communicate the States' progress and efforts towards the environmental goals set by the ICAO Assembly and a means to request necessary assistance.

Building on these successful achievements, on 17 December 2013, ICAO and the European Union (EU) signed an agreement to implement a joint assistance project: Capacity Building for CO2 Mitigation from International Aviation. Fourteen States from the African and Caribbean regions were selected to participate in this 4-year programme, which is funded by the European Union.

DEVELOPMENT OF STATE ACTION PLANS

This initiative has marked the beginning of an era of closer cooperation among ICAO Member States that had a willingness to address environmental issues but required assistance to mobilize their national stakeholders and take action. Comprehensive capacity building Seminars have been organized in each region to strengthen the national capacities of the selected States to address effectively CO2 emissions from international aviation.

PROJECT 'KICK-OFF' SEMINARS

DOMINICAN REPUBLIC - 2014 / CAMEROON - 2015

SECOND CAPACITY BUILDING SEMINARS

TRINIDAD AND TOBAGO - 2015 / KENYA - 2015

Collection and monitoring of CO₂ emissions from international aviation through the Aviation Environmental System

Preparation of the Action Plans according to ICAO Doc 9988

THIRD CAPACITY BUILDING SEMINARS

GABON-2016 / DOMINICAN REPUBLIC - 2016

Implementation of mitigation measures and monitoring of results

COLLABORATIVE SYNERGIES

undertake concrete action.

The project has supported the establishment of **National Action** Plan Teams (NAPT) in the 14 selected States, which have become a key coordination mechanism and an inclusive process for the development of Action Plans and to follow-up their implementation. The NAPTs have changed the way the States work towards environment in aviation by triggering synergies amongst national stakeholders (i.e. civil aviation authorities, ministry of environment, ministry of transport, airports, airlines, air navigation services providers and fuel suppliers), facilitating the decision-making process and securing the financial and political support for the implementation of mitigation measures The project's capacity building strategy has therefore enabled
The results of these pilot projects will become successful a shift in institutional culture towards the environment in the examples of concrete actions that could be replicated at a larger selected States, which have taken ownership and gained greater scale by other States that are willing to address the impact of awareness of environmental issues and are enthusiastic to aviation on climate change.

INTEGRATED TOOL AND TRAINING FOR A RELIABLE MONITORING OF CO₂ EMISSIONS IN AVIATION

Since 2010, the International Civil Aviation Organization (ICAO)

Through the project, ICAO has provided assistance to effectively implement the Aviation Environmental System (AES) in the national capacities on environment and, specifically, to reduce selected States - a resource developed under this ICAOthe impact of international aviation on climate change. Many of European Union Assistance Project that facilitates the monitoring ICAO's Member States wanted to take action, but were unsure of of CO2 emissions and the establishment of national inventories how or where to start. In response, the concept of "Action Plans" in the aviation sector. Through this system, the selected States can make better decisions with regards to the impacts of aviation on the environment and the sustainability of the overall sector. To facilitate integration with the existing local reporting systems, country-specific interfaces have been developed, and national authorities and relevant stakeholders have been trained through on-site missions to these States and capacity building seminars.

SUPPORT FOR THE EFFECTIVE IMPLEMENTATION

Following the submission of the Action Plans, ICAO will support the selected States in the implementation of their mitigation measures by providing guidance, preparing feasibility studies and by facilitating access to financial resources through partnerships with international financial organizations that are interested in supporting this type of sustainable development initiative.



PILOT MITIGATION MEASURES TO BE IMPLEMENTED WITH PROJECT FUNDING

SOLAR PANELS ELECTRIFICATION SYSTEM

OF CCO/CDO

BURKINA FASO IMPLEMENTATION

FEASIBILITY STUDIES
TO BE IMPLEMENTED WITH PROJECT FUNDING

FEASIBILITY STUDY

 DOMINICAN REPUBLIC · TRINIDAD & TOBAG

· TRINIDAD & TOBAG

KENYA

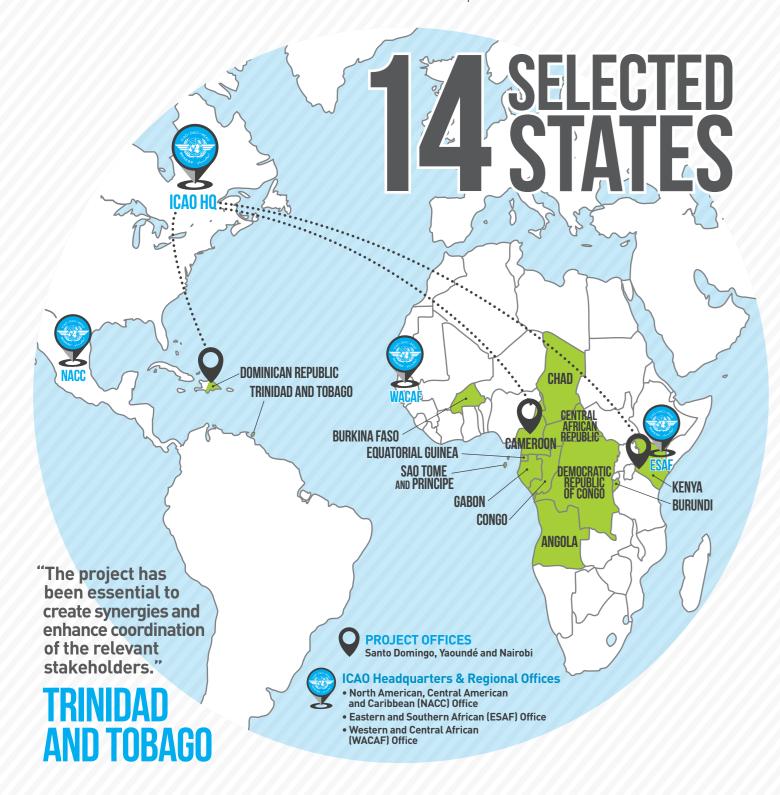
FEASIBILITY STUD BURKINA FASO

· KENYA

www.icao.int/environmental-protection/Pages/ICAO EU.aspx







CAPACITY BUILDING FOR CO2 MITIGATION INTERNATIONAL AVIATION

"Whilst we have been implementing measures to improve fuel efficiency and reduce CO₂ emissions for some time, we have experienced challenges with a robust data collection system to monitor their effective progress. This gap will be filled by the activities planned in the ICAO-EU project."

KENYA

ACTION PLANS DEVELOPMENT:

Improved capacity of the National Civil Aviation authorities to develop an Action Plan on CO2 emissions reduction from international viation in accordance with ICAC

AVIATION ENVIRONMENTAL SYSTEMS (AES):

Efficient CO2 emissions monitoring system for international aviation developed in each selected Member State

IMPLEMENTATION OF MITIGATION MEASURES:

Priority mitigation measures identified, evaluated and

"Our new Action Plan, prepared under the ICAO-EU project, is an important step to promote a comprehensive strategy to address climate change in the country within the aviation sector."

REPUBLIC

"This project is a great example of the ICAO initiative "No Country Left Behind" and such assistance project should be definitely replicated in other group of countries.

mitigation measures and

supported by the project

feasibility studies to be

CIVIL AVIATION AUTHORITIES

NATIONAL ACTION PLAN TEAMS

The main objective of the ICAO-European Union Assistance Project is to contribute to the mitigation of CO₂ emissions from international aviation by implementing capacity building activities that will support the development of low carbon air transport and environmental sustainability in the fourteen selected States. This project is a concrete example of ICAO's efforts to achieve the objectives of the "No Country Left Behind" initiative in the area of environmental protection.



political direction of the project. This Committee meets annually and includes representatives from ICAO, the European Commission and



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COORDINATOR











LOCAL CONSULTANTS





























"This project gives us the opportunity to

to get more involved on CO2 emissions

reduction at their national level."

BURKINA FASO

pave the way in this area, to strengthen the

regional cooperation on it and to trigger interest

in neighbouring national civil aviation authorities



Action Plan Teams officially

stablished in al

equipment purchased and shipped to all selected States

Project 'Kick-off Seminar' in Cameroon for African region

Capacity building data collection and emissions monitoring in **Trinidad and Tobago** Action Plans from two for Caribbean States

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Caribbean States submitted with more accurate data and balanced selection of mitigation measures

robust State Action Plans from 12 African States

Capacity building seminar on data collection and emissions monitoring

AES installed in all selected States and national stakeholders trained to report on emissions

inventories

first monthly report on CO2 emissions through AES

Start of the implementation of feasibility studies and mitigation measures to be supported by the project

> Submission of the 2016 annual report on CO emissions through the AES



of the project

Capacity building seminar on experience and knowledge

sharing on the implementation of mitigation measures for the Caribbean and African States

