

AVIATION CO₂ REDUCTIONS



STOCKTAKING SEMINAR

TECHNOLOGY · OPERATIONS · SUSTAINABLE AVIATION FUELS





Enabling a green aviation transition

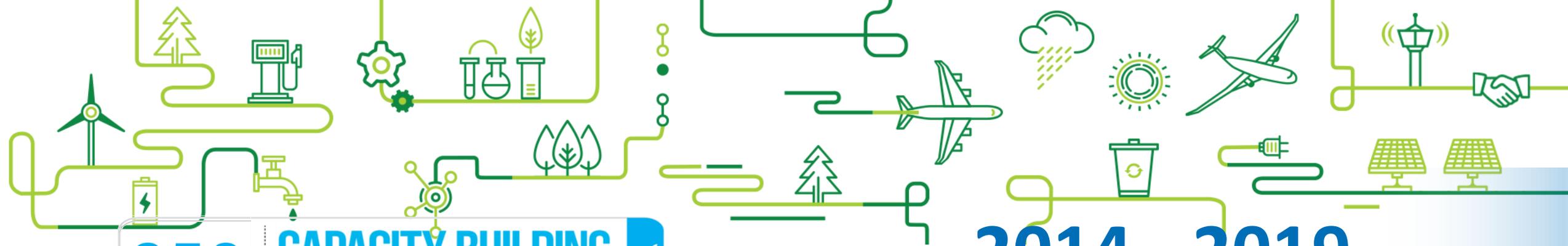
Neil Dickson

Chief, Environmental Standards –
ICAO





ICAO ENVIRONMENTAL ASSISTANCE PROJECTS

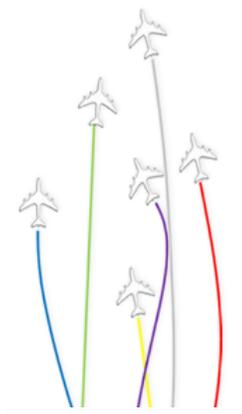
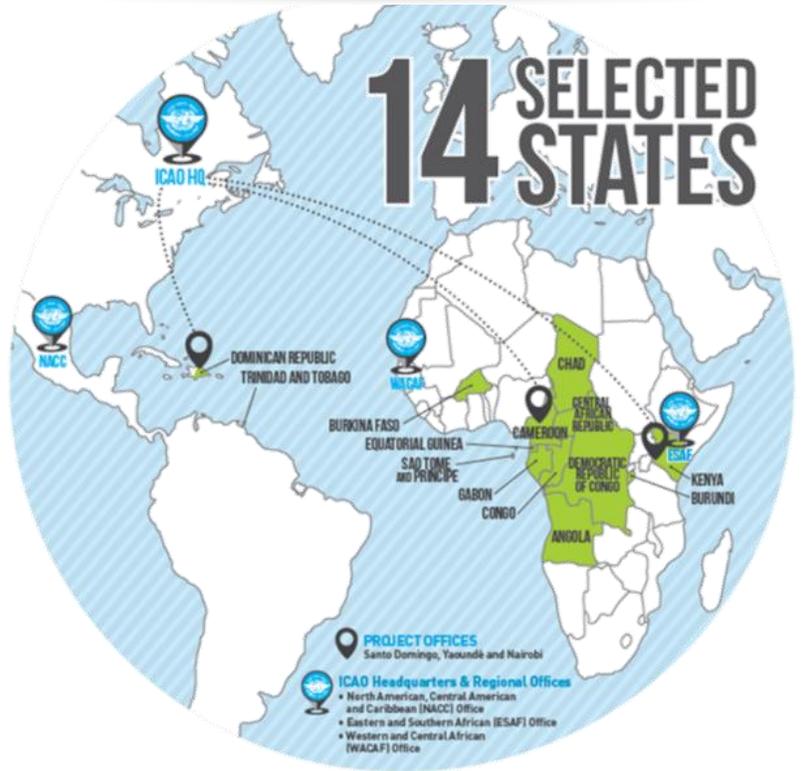


2014 - 2019

6.5€
MILLION
BUDGET

**CAPACITY BUILDING
FOR CO₂ MITIGATION**
FROM INTERNATIONAL AVIATION

No Country Left-Behind



PROJECT FUNDED BY



European Union

OBJECTIVE 1

ACTION PLANS DEVELOPMENT:

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

OBJECTIVE 2

AVIATION ENVIRONMENTAL SYSTEMS (AES):

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

OBJECTIVE 3

IMPLEMENTATION OF MITIGATION MEASURES:

Priority mitigation measures identified, evaluated and partly implemented





PILOT MITIGATION MEASURES

TO BE IMPLEMENTED WITH PROJECT FUNDING

The pilot mitigation measures, which will be completed by 2018, will showcase concrete actions that may be replicated by other Member States to contribute to the achievement of ICAO's aspirational goals for CO₂ emissions reduction from international aviation.



FEASIBILITY STUDIES

TO BE DEVELOPED WITH PROJECT FUNDING

The feasibility studies will provide the governments of the selected States decision-making tools that may unveil new opportunities to get to the edge of innovations for a sustainable aviation sector.

FEASIBILITY STUDY

on the use of renewable energy to power airport operations

TRINIDAD & TOBAGO

DOMINICAN REPUBLIC

TRINIDAD & TOBAGO

BURKINA FASO

KENYA

FEASIBILITY STUDY

on the development of sustainable alternative fuels

SOLAR PANELS

Provide clean power to the airport grid

CAMEROON

DOUALA INTERNATIONAL AIRPORT

KENYA

MOMBASA INTERNATIONAL AIRPORT

CO₂ REDUCTION
3,875
TONNES/YEAR

GATE ELECTRIFICATION SYSTEM

Provides ground power and pre-conditioned air to the aircraft at the gate

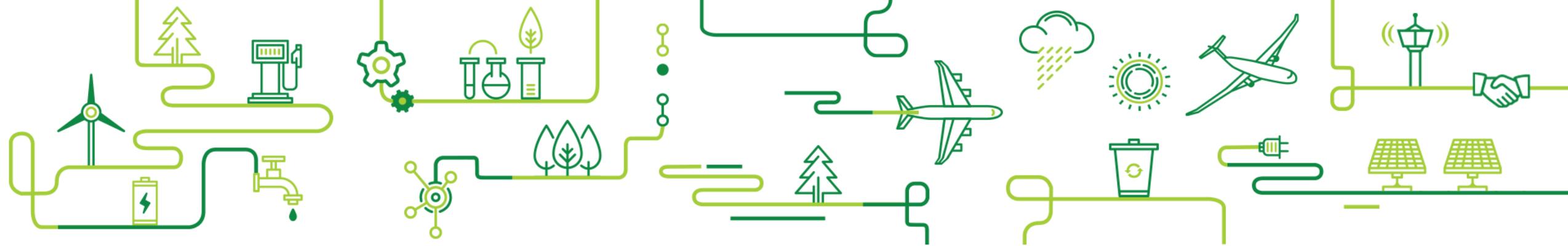
IMPLEMENTATION OF CCO/CDO

Continuous Climb Operations (CCO) / Continuous Descent Operations (CDO)

BURKINA FASO

GABON

CO₂ REDUCTION
1,368
TONNES/YEAR



ICAO Assistance to Africa Indian Ocean (AFI) States

ICAO-EU Project Phase II

ICAO 2nd Assistance Project
with EU Funding

- supporting 10 selected AFI States in both Regions

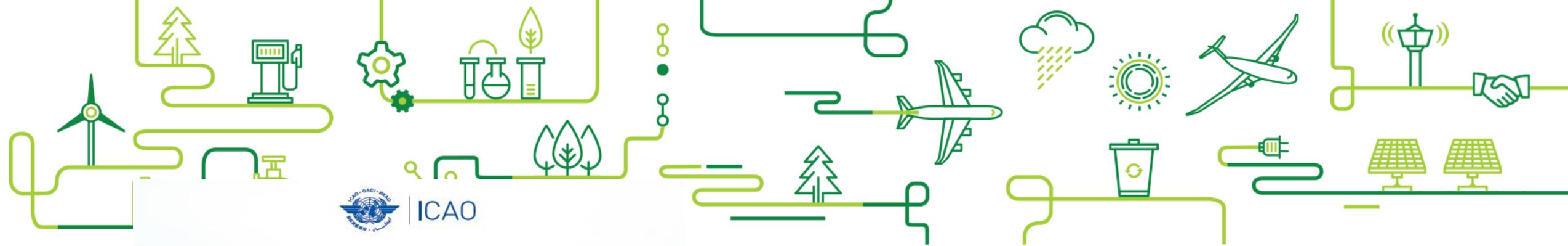
Botswana
Comoros
Madagascar
Rwanda
Zimbabwe

ESAF

Benin
Capo Verde
Cote d'Ivoire
Mali

Senegal

WACAF



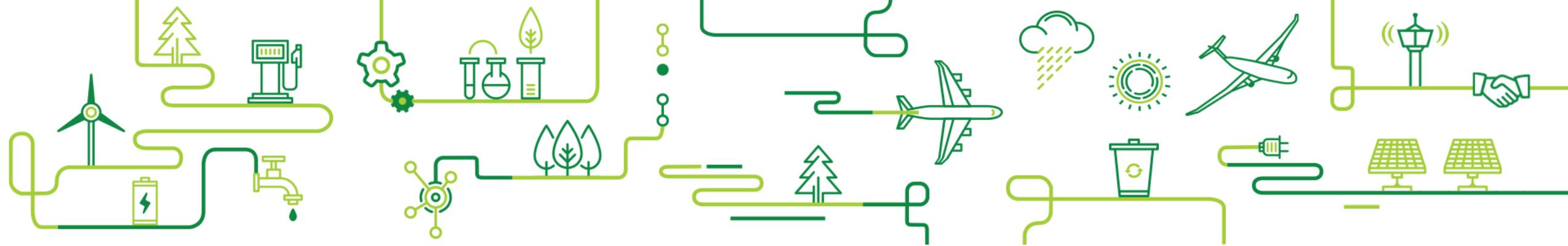
TRANSFORMING THE GLOBAL AVIATION SECTOR: EMISSIONS REDUCTIONS FROM INTERNATIONAL AVIATION



Support developing States and Small Island Developing States strengthen their national capacities to reduce emissions from international civil aviation

ICAO STOCKTAKING 2020





THIS ASSISTANCE PROJECT IS COMPRISED OF FOUR COMPONENTS

1 IMPLEMENTING AVIATION LOW EMISSIONS MEASURES: COSTS AND ENVIRONMENTAL BENEFITS ASSESSMENT

2 DEVELOPMENT OF 4 GUIDANCE DOCUMENTS TO FACILITATE LOW EMISSIONS AVIATION IN DEVELOPING STATES AND SIDS

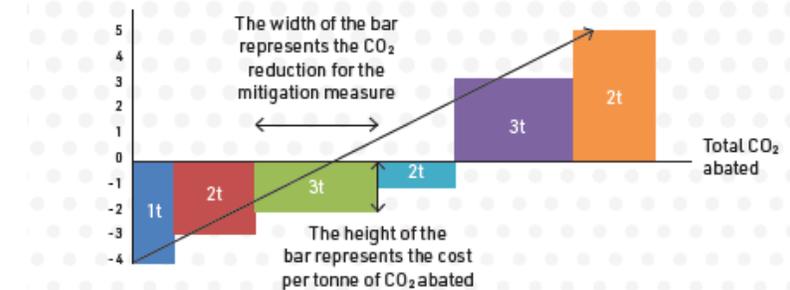
3 ICAO INTEGRATED ENVIRONMENTAL TECHNICAL PLATFORM

4 PILOT PROJECT ON AVIATION LOW EMISSIONS MEASURES

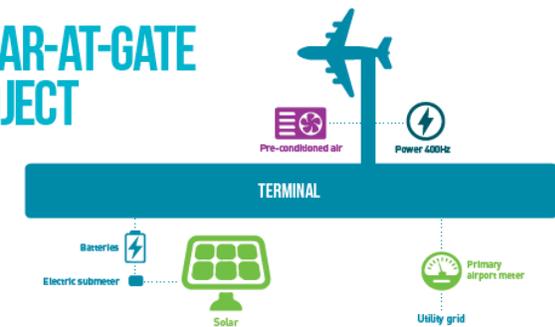
ICAO LOW-CARBON AVIATION KNOWLEDGE-SHARING PLATFORM



Cost per CO₂ abated (\$/t of CO₂)



SOLAR-AT-GATE PROJECT





Conclusions

- ICAO State Action Plan initiative is key to enabling a green transition for aviation.
- The ICAO-EU and ICAO-UNDP-GEF projects provided valuable support to States that is replicable.
- All of the guidance documents, feasibility studies and several of the tools developed under these projects are available free-of-charge.
- ICAO is continuing to investigate ways to provide similar support to Member States, through the second phase of the ICAO-EU project and feasibility studies.

Thank You



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Middle East
(MID) Office
Cairo

Asia and Pacific
(APAC) Office
Bangkok

Eastern and
Southern African
(ESAF) Office
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Central African
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