



ICAO CAPACITY BUILDING SEMINAR ON LOW EMISSIONS AVIATION MEASURES

# States' strategy to deal with international aviation emissions: Mitigation Measures

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### **Outline**

- ICAO State Action Plan Minimum Content Review
- Defining ICAO's Basket of Measures
  - Mitigation Measures Seven (7) categories of measures
  - Mitigation Measures ICAO Basket of Measures
- Guidance on Selecting Measures
- Additional Guidance
- Additional Support
- Summary





### **State Action Plan Minimum Content**

- Contact information
  - Baseline scenario (without action) fuel consumption  $CO_2$  emissions and traffic (2010 or earlier to 2050)
  - 3 List of selected mitigation measures
    - Expected results (fuel consumption, CO<sub>2</sub> emissions and traffic with the actions in #3 being taken 2018 to 2050)
      - Assistance needs



# **Defining ICAO's Basket of Measures**

- High-level Meeting on International Aviation and Climate Change in October 2009 (HLM-ENV/09) endorsed the Programme of Action on International Aviation and Climate Change, which included:
  - global aspirational goals;
  - a basket of measures; and
  - the means to measure progress.





# Mitigation Measures – Seven (7) categories of measures:

- 1. aircraft-related technology development;
- 2. sustainable aviation fuels
- 3. improved air traffic management and related infrastructure use
- 4. more efficient operations
- 5. economic/market-based measures
- 6. regulatory measures/other; and
- 7. airport improvements



# Mitigation Measures – ICAO Basket of Measures

As defined in the ICAO 39<sup>th</sup> Assembly Resolution A39-2:

Technology and standards

Sustainable alternative fuels

Operational improvements

Market-based measures

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7
Categories
of
Measures

airport improvements

aircraft-related technology development

sustainable aviation fuels

more efficient operations

regulatory measures / other

economic / market-based measures

improved air traffic management and related infrastructure use

ICAO
Basket of
Measures

Marketbased measures

Technology and standards

Sustainable alternative fuels

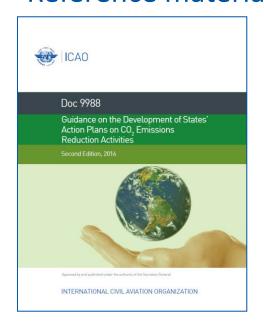
**Operational improvements** 



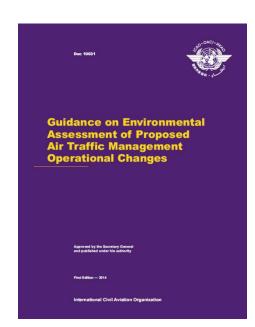


## **Guidance on Selecting Measures**

• Reference material:



ICAO Doc 9988



ICAO Doc 10031

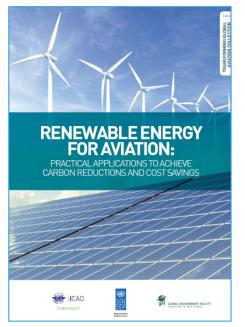


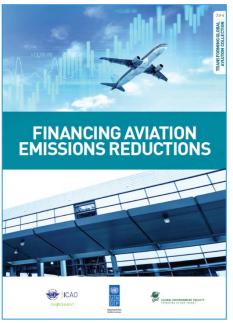
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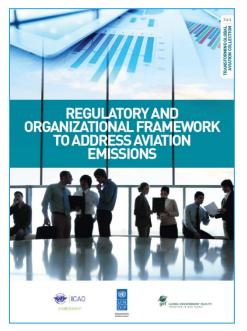




## **Additional Guidance**













## **Additional Support**

- ICAO MAC Curve Tool
  - Will help Developing States and SIDS
  - Provides information on financial costs compared to CO<sub>2</sub> emissions reductions benefits









## **In Summary**

- Selecting appropriate mitigation measures are an integral part of a complete State
   Action Plan
- ICAO has developed a collection of guidance materials to assist States in the process of selecting mitigation measures
- The ICAO-UNDP-GEF Project has allowed ICAO to develop additional materials to support Member States in the process of selecting and implementing mitigation measures

For more information on this project, please visit ICAO's website:

https://www.icao.int/environmental-protection/Pages/ICAO\_UNDP.aspx



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