Global Aviation Dialogues (GLADs) on Market-Based Measures to address Climate Change

Key Elements of an Aviation MBM



Environment, Air Transport Bureau International Civil Aviation Organization (ICAO)



- Key Elements of an Aviation MBM
 - A scope
 - An objective
 - A baseline
 - A common approach for all participants to contribute to the attainment of the objective
 - Monitoring, reporting and verifying emissions
 - Environmental integrity of emissions units
 - Registry
 - Compliance cycle
 - Enforcement mechanism
- Planning to A39



Scope

- Type of greenhouse gas emissions
 - CO₂ only
- Type of flights
 - International flights
- Attribution of emissions in international airspace
 - Every international flight is only covered once for its full length, to avoid double counting
- Sustainable alternative fuels
 - Provisions for accounting emissions from flights using sustainable alternative fuels needs to be defined (in the current CAEP Work Programme)



- Objective
 - ICAO's aspirational goal is carbon neutral growth from 2020
- Baseline
 - International aviation emissions in 2020
- A common approach for all participants to contribute to the attainment of the objective:
 - Distributes obligations among operators
 - Adjustments and/or exemptions might be needed



- Monitoring, reporting and verifying emissions
 - Purpose: to collect data on international aviation emissions annually and compare emissions against the baseline
 - Components:
 - Monitoring of fuel use and calculation of CO₂ emissions (1 tonne fuel burn = 3.16 tonnes CO_2 emissions)
 - Reporting of emissions data, a basis to establish annual obligation
 - Verification of reported emissions data to ensure completeness and avoid misstatements

Example - MRV

Operators

- Monitoring Plan
- Fuel Burn Monitoring
- Calculation of Emissions
- Development of report
- Internal Verification of Report

Report

3rd Party Verifier

 Verification of Report before submission

Monitoring Reporting Verification

Report

ICAO

- Collection of States emission data
- Assessment of overall global compliance
- Maintain registry

Report

Single State Authority

- Approval of Monitoring Plan
- Post Verification of Report
- Report emissions to ICAO

Environmental integrity of emissions units

- Quality: emissions units must correspond to actual emission reductions (e.g.: real, permanent, additional, verified)
- Quantity: emissions units must not be counted for more than one purpose in this MBM and/or other MBMs (no double counting)
- Compliance: need to cancel an adequate amount of emissions units to offset emissions above the baseline

Registry

- Track compliance of participants of the MBM
- Avoid double counting by recording all transactions centrally
- Help assess progress towards the goal
- Maintains transparency for participants and stakeholders

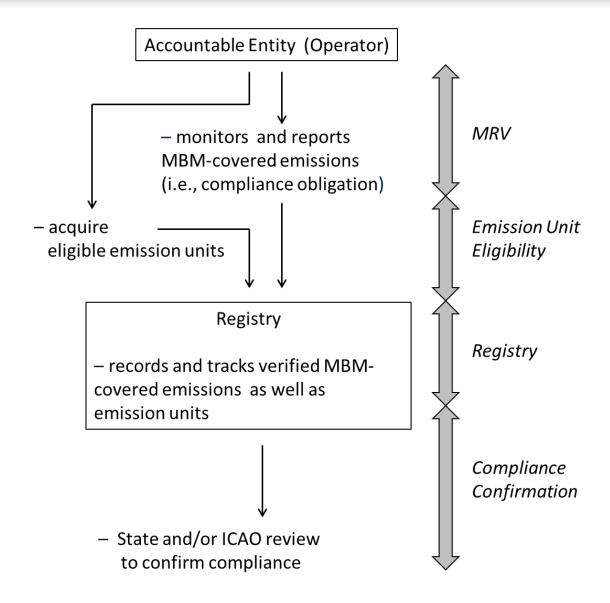


ICAO ENVIRONMENT Example - Emissions Units

There are two main types of emissions units, and a variety of issuers worldwide

Type of unit	Definition	Examples of issuers
"Allowance"	Units issued by an ETS Correspond to the emissions cap established by the ETS	National/subnational governments
"Credit"	Units issued by a crediting programme Correspond to emissions reductions that have been monitored, reported and verified	UNFCCC (CDM) National/subnational governments Third parties/Voluntary Markets

ICAO ENVIRONMENT Example - Registry Process





Compliance cycle

- Monitoring of emissions
- Reporting of emissions
- Verification of emissions
- Cancellation of emissions units (compliance)

Enforcement mechanism

- States agree to relevant Assembly Resolution and potential ICAO standards
- It is expected that States will then adopt provisions to implement and enforce the scheme for covered operators

ICAO ENVIRONMENT Planning to A39 - 2016



