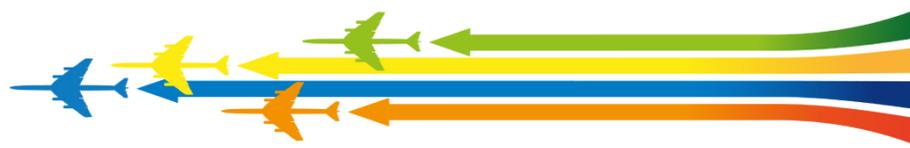




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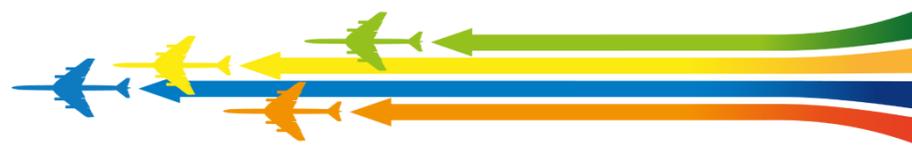
UNITING AVIATION

**E-GAP**



# ICAO Global Aviation Partnerships on Emissions Reductions (E-GAP) Multiplying Environmental Action

*Katie Sullivan, IETA*



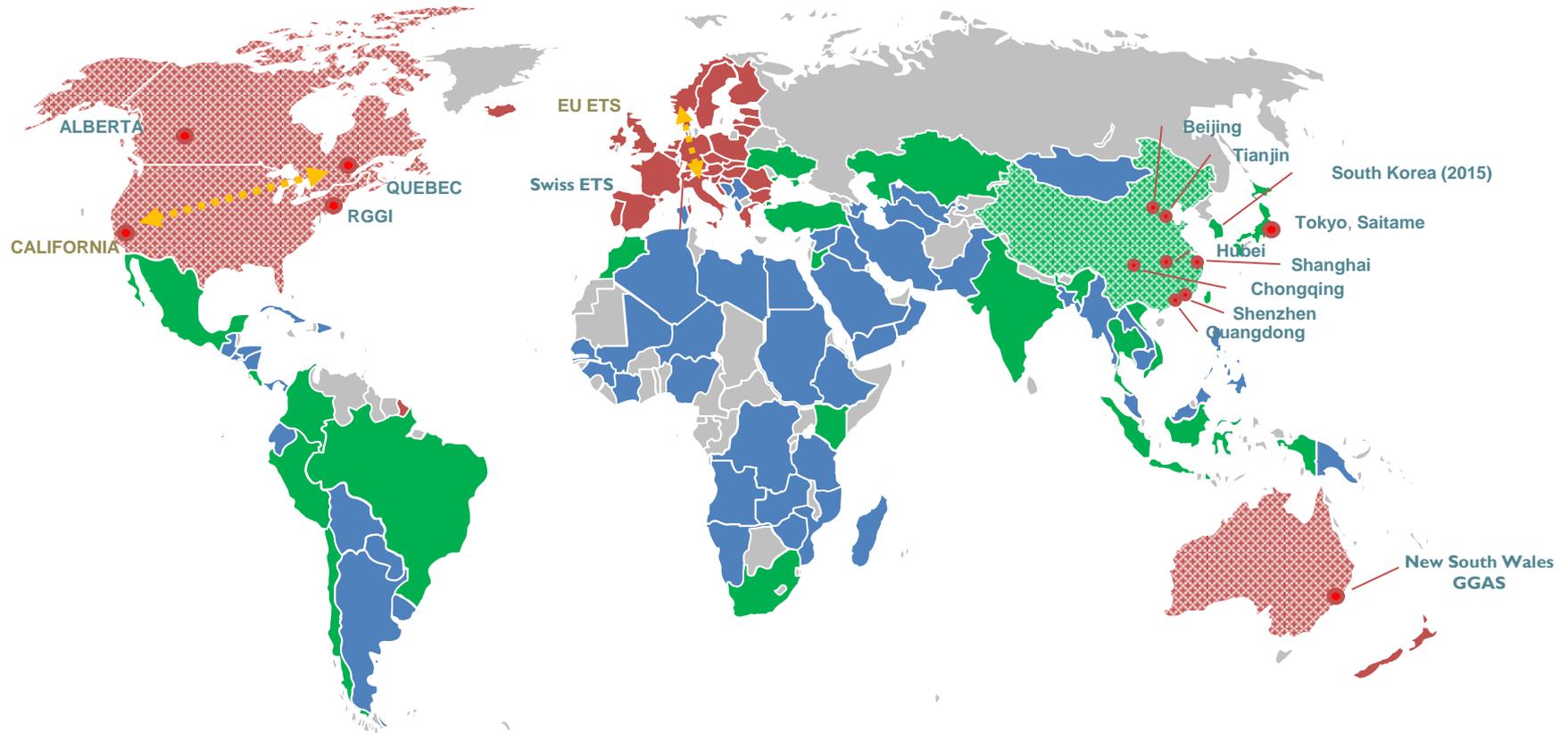
# What is IETA?

- **Global Cross-Sector Business Association**
  - Companies from oil, electricity, banking, industry, traders and brokers, law, consulting, project developers, exchanges, verifiers, etc.
  - Collectively providing an effective business voice on carbon pricing
- **Key Principles:**
  - Flexible market-based mechanisms provide the most efficient means of achieving environmental objectives
  - Long-term policy certainty is necessary to achieve cost-effective reductions
  - Broad use of offsets and linkage to regional and global markets are effective ways to contain costs, driving deeper reductions and more ambitious climate change targets



# Taking Stock...Demand Builds Post-2020

- **Carbon Pricing Momentum (and post-2020 commitments):**
  - **INDC Submissions – Markets to Reach Post-2020 Targets**
  - **G7 De-carbonization Pledge & Carbon Pricing Support**
  - **Sub-National Momentum - Under 2 MOU**
  - **EPA Clean Power Plan – State Compliance Options & Trading**
  - **Ontario, Mexico – Next to Join WCI?**
  - **Oil & Gas Letter, Investor Letter – Calls for Carbon Pricing**
  - **Carbon Pricing Leadership Coalition (CPLC)**
  - **NYC Climate Week – Markets, Business, Carbon Pricing Events**



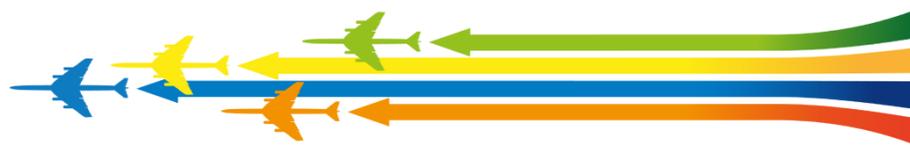
CDM Host Countries as of July 1, 2013 (UNEP Riso Centre, data from the CDM Pipeline)

Existing Emission Trading Schemes

Emission Trading Scheme in Progress

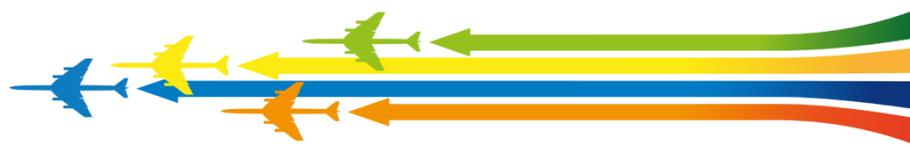
Countries with provincial-only Emission Trading Schemes

Linkages



# What is the Carbon Market?

- **Carbon market exists to address an environmental goal:**
  - Reducing greenhouse gas emissions and tackling climate change at least-cost
- **Carbon market is a commodity market.**
  - Like any commodity market, it's driven by the law of supply & demand
- **Buying and selling of units results in a price of emissions**
  - Price information signals to firms about “whether it's cheaper to reduce emissions (internal abatement) or purchase tradable units (allowances/offsets) on the market
- **Compliance carbon market has some “unique features”**
  - Demand and supply are created and controlled by government
  - Government controls offset eligibility, rules, issuances
  - Stroke of Pen Risks, Political Risks etc...



# What is the Carbon Price?

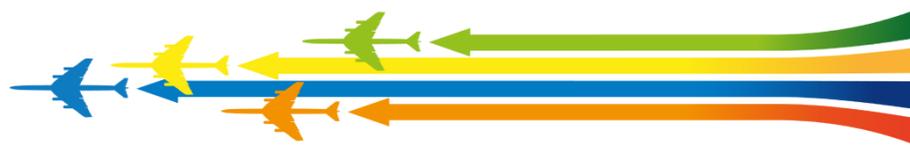
- **No single price**
  - Global and regional markets = fragmentation galore
- **Several factors determine supply-demand and price**
  - Credit prices fluctuate with time and market demand and supply
  - Critical differences between compliance & (pre)-voluntary credit prices
- **Program Design Matters – especially post-2020 (as demand climbs):**
  - Caps
  - Coverage
  - Cost-Containment
  - Market Participation
  - Complementary Mechanisms
  - Offset Rules (including Quantitative & Qualitative Limitations)



# What Offset Project Types?

- **Project eligibility for carbon credits depends on:**
  - Whether a project – or group of projects – follows a recognized protocol or methodology
- **Carbon credits can be generated from various project types:**
  - Forestation and Afforestation
  - Energy efficiency
  - Methane Capture
  - ODS Destruction
  - *See IETA's Protocol Catalogue...*

An offset credit represents one ton of carbon dioxide equivalent either removed, avoided, or sequestered. Offset projects that generate carbon credits make a real difference to climate change.



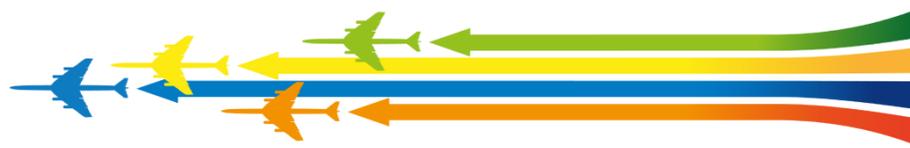
# Carbon Market – Key Players & Insights

- **What is the Role of...**
  - Assurance Providers?
  - Registry & Tracking System (including Retirement)?
  - Exchanges?
  - Brokers?
  - Traders/Market Makers?
  - Financiers?



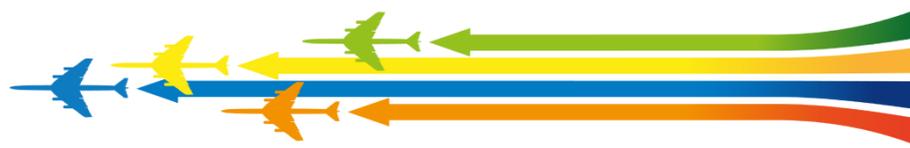
## (Details) Role of Intermediaries...

- **Provide Trading, Origination and Hedging Services**
  - Spot/Physical
  - Forwards/Futures/Options
  - Trade Offsets and Allowances
- **Help Overcome Trading & Hedging Challenges**
  - Setting-up a trading desk and hedging for compliance can be costly
  - Registration or establishing an account (e.g. CITSS) can be challenging
- **Buyers Purchase Units from Intermediary**
  - One can purchase credits directly from an intermediary
  - Buyer can have a deal with counterparty rather than Program Authority
- **Offset Origination – Lower-Cost Purchase vs. Sale**
  - Intermediaries help originate offset projects
  - Intermediaries then sell offset credits from project to compliance entity
  - Intermediaries working with project developers allows for lower cost purchase vs. sale



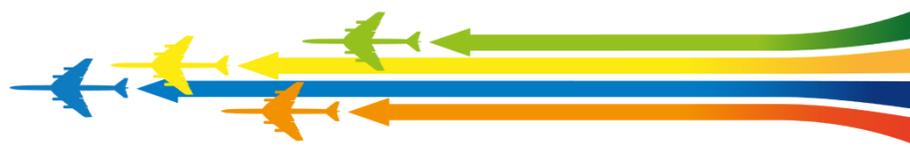
# Principles for an Effective Carbon Market?

- **Establish long-term, science and environmental-based goals**
  - Clear and stable regulatory regime drives a stable market
  - Promotes scarcity (and thus price)
  - Provides confidence to the investment community
  - Clarity, transparency and certainty is paramount!
- **Open & Broad Market**
  - Promotes broad participation and liquidity
  - Lowers-costs, allows entities to calculate and hedge their exposure
- **Based on sound market infrastructure**
  - Measurement, reporting, and information dissemination is absolutely critical
  - Registry security is critical
- **Build-in Change Management Process to Regulation**



## Preparing to Comply & Thrive...

- **Some compliance players leverage expertise in trading commodities**
  - Gradually build in-house environmental markets expertise
  - Evolves from compliance to commercial operations
- **Similar to other commodity markets, but unique risks (“Stroke of Pen”)**
  - Evaluating risks & opportunities requires commercial expertise
  - Many start with cost optimization, evolving into a “profit center”
- **Some build deep offset expertise, such as:**
  - Offset Protocol Development, Technical Support and Capacity
  - Offset Project Development Partnerships
  - Structured Offset Transactions



# IETA Partnerships Worldwide (Selection)

