



# Carbon Programs and Carbon Markets

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American Forest Foundation

# Objectives

Provide an overview of:

Carbon Programs

Carbon Markets





# Role of Forests

Forests offer a vital role as a natural mechanism to remove and store carbon from the atmosphere

Forests account for 92% of all terrestrial biomass globally

U.S. Forests and associated wood products capture and store about 16% of U.S. annual emissions from burning fossil fuels.

Forests are the most sought-after source of carbon offsets in voluntary and compliance markets



# Carbon Programs

Voluntary Carbon Markets

Regulated Carbon Markets



# Carbon Programs

## Voluntary Carbon Markets

- American Carbon Registry (ACR)
- Climate Action Reserve (CAR)
- Gold Standard
- Voluntary Carbon Standard (VCS)  
(Family Forest Carbon Program)



# Carbon Programs

## Regulated Carbon Markets

- California Air Resources Board (CARB)
- Regional Greenhouse Gas Initiative (RGGI) (no forestry protocol)





# Carbon Markets

1 Billion carbon offsets worth nearly \$5 million transacted in the voluntary markets

200 Million carbon offsets registered generating over \$1 Billion in transactions in the regulated market.

Good source of information on global voluntary markets – Ecosystem Marketplace

<https://www.ecosystemmarketplace.com/carbon-markets/>



# Carbon Market Drivers

Private Sector Demand

Government Initiatives





# Carbon Market Drivers



# Carbon Market Drivers

## Private Sector Demand

Driven by ESG (Environmental/Social/Governance)

- stakeholders/shareholders/boards/employees

CPD Global (Carbon Disclosure Project)

- >1,200 companies worldwide preparing or already carbon setting internal carbon pricing

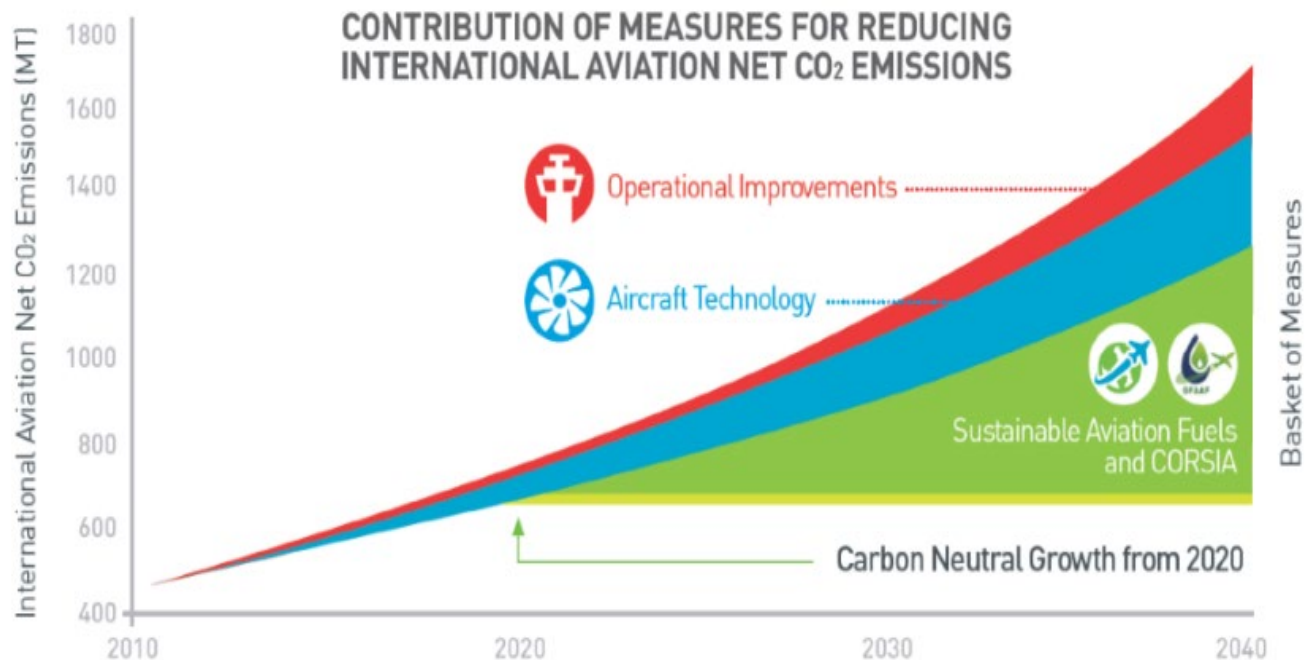
<https://www.cdp.net/en/info/about-us>



# Carbon Market Drivers

## Government Initiatives

### Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)





# Carbon Market Drivers

## Government Initiatives for Carbon Offsets & Alternatives

- Federal Government  
Proposed USDA Carbon Bank
- U.S. Climate Alliance States (25 states)
  - Natural & Working Lands Committee



# Carbon Market Drivers

## Other Potential International Markets

- International Shipping – UN's International Maritime Organization (IMO)
  - Top 10 international container shipping companies generate \$200 billion (USD) annually
  - All located in countries that ratified the Paris Climate Accord
- Cloud Computing
  - By 2030, carbon footprint could equal aviation industry's emissions from fuel



# Carbon Pricing

## Value of carbon offsets in the U.S. Market

- Regulated
- Voluntary
  - Co-benefits can play a role
  - Type of project
    - Avoided emission (storage)
    - Sequestration (removal)





# Thank You

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