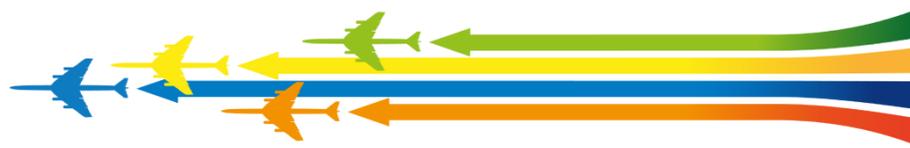




ICAO

UNITING AVIATION

E-GAP



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

An overview of the World Bank Group carbon finance facilities



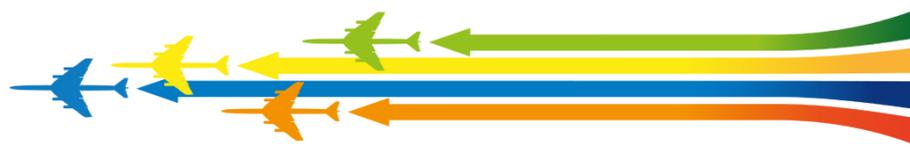
WORLD BANK GROUP
Climate Change



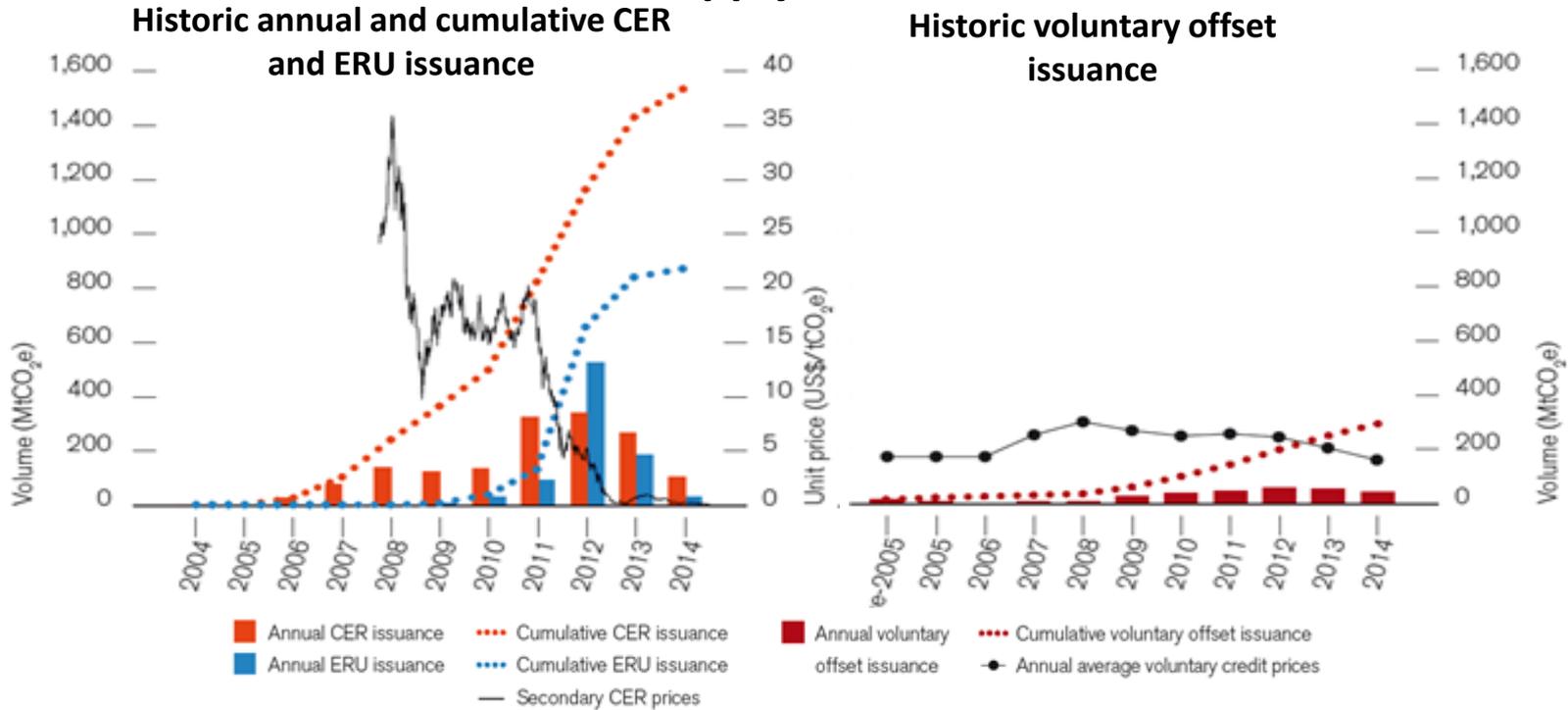
Designing and implementing carbon pricing instruments is a growing trend at the sectoral, international, regional, national and sub-national level

Form and scope of Carbon Pricing Instrument		Approximate demand from MBM
Sectoral	The emission reduction pledges that Parties submit to the UNFCCC will include sector-specific targets and action plans	The use of international offsets is a clear part of the mix of policy options to meet sector target
	ICAO is expected to finalize, by 2016, a global Market Based Mechanism (MBM) to help the aviation sector achieve Carbon-Neutral Growth from 2020.	<ul style="list-style-type: none"> • Potential demand increasing to 250 MtCO₂ per year by 2030 and beyond • Total cumulative demand expected to be 13 to 20 GtCO₂ between 2020-2050 in order to achieve Carbon Neutral Growth*
International	Decisions about the form and scope of a new post-2020 agreement under the UNFCCC, are expected to be reached in December, 2015.	The use of international offsets is a clear part of the mix of policy options available for these carbon pricing instruments.
Regional, national, sub-national	62 jurisdictions are putting a price on carbon. In 2015, these carbon pricing instruments cover some 7 GtCO ₂ at a value of just under US\$50 billion.	

Source: World Bank Group (August 2015)
 • ICAO & World Bank analysis. Estimated baseline is 700MtCO₂ per year in 2020. Demand figures are for MBM only and account for technology & ATM improvements)



Supply of offsets



Estimated Future supply (2015 to 2020):

- Certified Emission Reductions (CERs) = 150MtCO₂ per year *
- Voluntary offsets: 80 – 110MtCO₂ per year *

* Expected yearly project based issuances on average over the 2015-2020 period

- The supply of offsets is decreasing due to a lack of robust and effective demand
- Early action is critical to signal demand and ensure enough credits are issued to meet the aviation sector needs

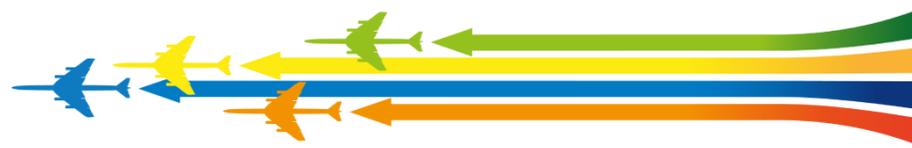
Source: UNFCCC for CDM data on issuances, Intercontinental Exchange ICE for CDM data on prices, Forest Trends' Ecosystem Marketplace for data on voluntary offsets.



Options for Purchasing carbon offsets

When considering options for purchasing carbon offsets, the Aviation Industry's short and long term strategy will involve a number of considerations, including:

- Resource commitment
- Cost
- Opportunity to advance internal understanding of carbon market
- Risks. e.g., regulatory risk, issuance risk and reputation risk



Carbon Funds have been the primary source of demand for carbon offsets to date and are particularly attractive for new carbon market entrants

Advantages of a carbon fund:

- ✓ Allows buyers to aggregate demand and reduce overhead and transaction costs
- ✓ Volumes of assets sought, and government participation in the funds in many cases, gives Carbon Funds significant market leverage and the ability to attract favorable commercial terms
- ✓ Cost-effective and low risk approach to meeting CO2 obligations for those firms that do not have the in-house expertise to establish their own carbon asset sourcing programs
- ✓ Opportunity to diversify current portfolios and manage risk
- ✓ Excellent opportunity to examine in detail trends, projects, compliance market mechanisms and other compliance schemes



The World Bank Group has \$3.8 billion under management through 15 carbon funds and facilities which facilitate procurement at scale

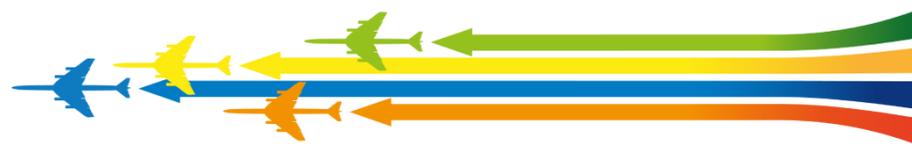
WBG Facilities

	Prototype Carbon Fund
	Netherlands CDM Carbon Fund (NCDMF)
	IFC-Netherlands Carbon Facility (INCaF)
	Community Development Carbon Fund (CDCF)
	IFC-Netherlands European Carbon Facility (NECaF)
	Netherlands European Carbon Fund (NECF)
	BioCarbon Fund Tranches 1 & 2 (BioCF T1 and T2)
	Italian Carbon Fund (ICF)
	Danish Carbon Fund (DCF)
	Spanish Carbon Fund (SCF)
	Umbrella Carbon Facility Tranches 1 and 2 (UCF)
	Carbon Fund For Europe (CFE)
	IFC Post-2012 Carbon Facility (P12C)

Lessons learned

- Through life management of carbon funds is key, including: structuring, fund raising and administration
- Origination and valuation of carbon offsets in global carbon markets is critical
- Deep familiarity with the Kyoto Protocol and the mechanisms governing participation in CDM and Joint Implementation (JI) is an essential requirement
- Comprehensive understanding of the policy landscape is important, particularly related to the design and implementation of international, regional, sectoral, national, sub-national carbon pricing instruments
- Understanding the evolution of design features in other carbon markets is key

*Legal end of the Instrument. In these cases funds will close sooner as funds make final deliveries to Participants.
 ^ Cumulative resources not considering disbursements to-date
 # Capitalization not disclosed



The World Bank Group is also implementing carbon market facilities that innovate and pilot new carbon market instruments

Initiative	Objective
Carbon Partnership Facility and TCAF	Pilot new carbon market mechanisms that have emerged from discussions of the post-2012 climate change agreement
Pilot Auction Facility	Pioneers the use of auctions for simple and efficient procurement of carbon assets that can be applied in many sectors and MBMs.
Bio Carbon Fund & Forest Carbon Partnership Facility	Results-based finance for CO2 reductions at the landscape level Prepare developing forest countries for REDD+



The World Bank Group also plays a leadership role in shaping future carbon markets and regulatory instruments

Initiative	Objective
Carbon Pricing Leadership Coalition	Brings together leaders from government, business and civil society with the goal of putting in place effective carbon pricing policies worldwide.
Partnership for Market Readiness	Provides grant funding and a platform to support countries to improve technical and institutional “readiness” for carbon pricing
Networked Carbon Markets initiative	Enabling comparability among different climate mitigation actions, for a connected international carbon market



The World Bank has partnered with many public and private entities to develop Market Based Mechanisms

Over 50 private sector partners

Financials	Swiss Re	NORDJYSK ELHANDEL	kfw	Fortum	Daiwa Capital Markets
	cdc climat	Deutsche Bank	MITSUI & CO., LTD.		
Oil & Gas	bp	REPSOL	GDF SUEZ	CEPSA	ENEOS
	Statoil	gasNatural	JAPEX	IDEMITSU	NIPPON OIL
Utilities	eon	DONG energy	endesa Italia	HYDRO	IBERDROLA
	Statkraft	hc energia	RWE	Enel	住友共同電力株式会社
Industrials	MÆRSK	RUUKKI	Italcementi Group	Mitsubishi Corporation	JISF
	CEMENTOS PORTLAND VALDERRIVAS	IRIDE MERCATO	BASF	FUJIFILM	SUMITOMO CHEMICAL
Others	The Nature Conservancy	eco carbone	SUNTORY	ZEROEMISSIONS	syngenta foundation for sustainable agriculture
			ERG		Stiftung Klimarappen

Over 40 public sector partners

Australia	Austria	Brazil	Chile	China
Colombia	Costa-Rica	Denmark	Finland	Germany
Indonesia	Italy	Japan	Jordan	Kazakhstan
India	Mexico	Morocco	Netherlands	Norway
Peru	South Africa	Spain	Sweden	Switzerland
Thailand	Tunisia	Turkey	Ukraine	United Kingdom
United States	Vietnam	Agence Francaise de developpement	Japan International Cooperation Agency	REGIONAL GOVERNMENTS OF BRUSSELS-CAPITAL, FLEMISH AND WALLOON REGIONS
Canada	Luxembourg	Denmark	Ireland	European Union
FONDO PORTUGUES DE CARBONO	Portugal			